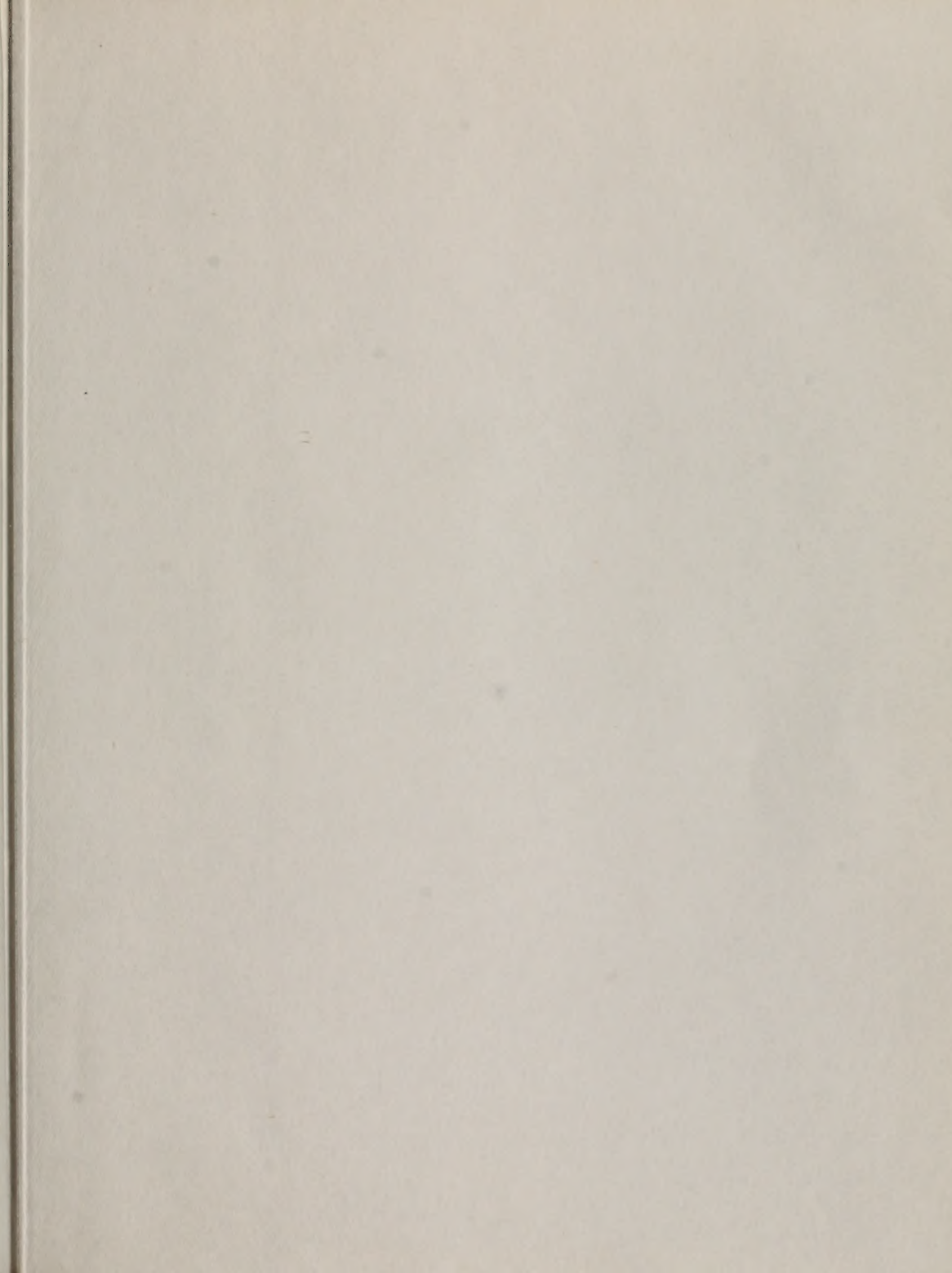
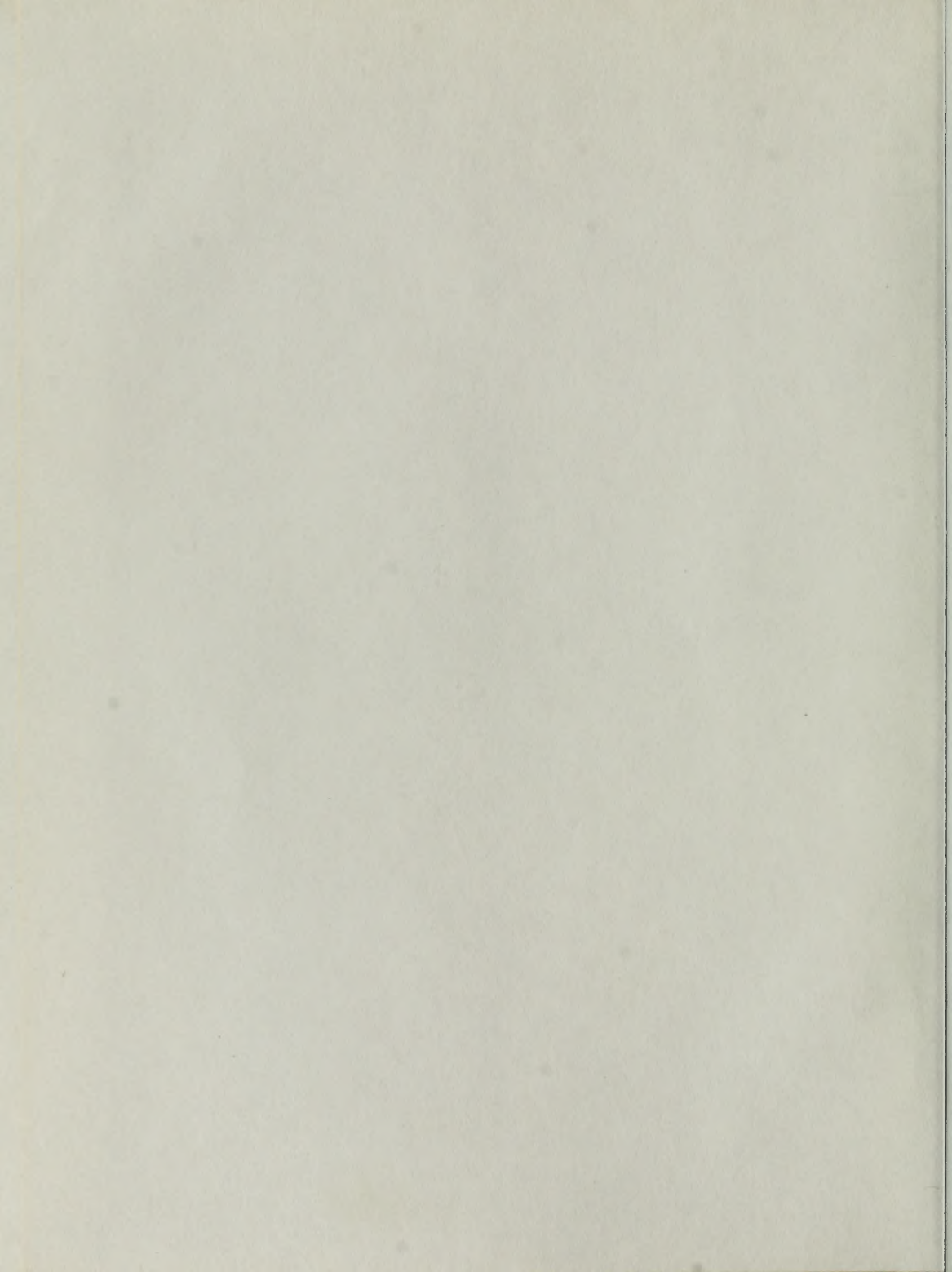




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DEPARTMENT OF THE INTERIOR  
BUREAU OF RECLAMATION  
WATER RESOURCES DIVISION

WASHINGTON, D. C.

# HYDROLOGIC DATA

VOLUME 1. CALIFORNIA

1960-1961



Prepared by  
WATER RESOURCES DIVISION  
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State of California  
THE RESOURCES AGENCY

Department of Water Resources

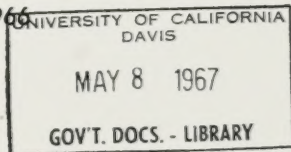
BULLETIN No. 130-65

# HYDROLOGIC DATA: 1965

Volume V: SOUTHERN CALIFORNIA

Appendix E: GROUND WATER QUALITY

DECEMBER 1966



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Administrator  
The Resources Agency

EDMUND G. BROWN  
Governor  
State of California

WILLIAM E. WARNE  
Director  
Department of Water Resources

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THE RESOURCES AGENCY  
Department of Water Resources

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ORGANIZATION OF BULLETIN NO. 130 SERIES

Volume I - NORTH COASTAL AREA

Volume II - NORTHEASTERN CALIFORNIA

Volume III - CENTRAL COASTAL AREA

Volume IV - SAN JOAQUIN VALLEY

Volume V - SOUTHERN CALIFORNIA

Each volume consists of the following:

TEXT and

Appendix A - CLIMATE

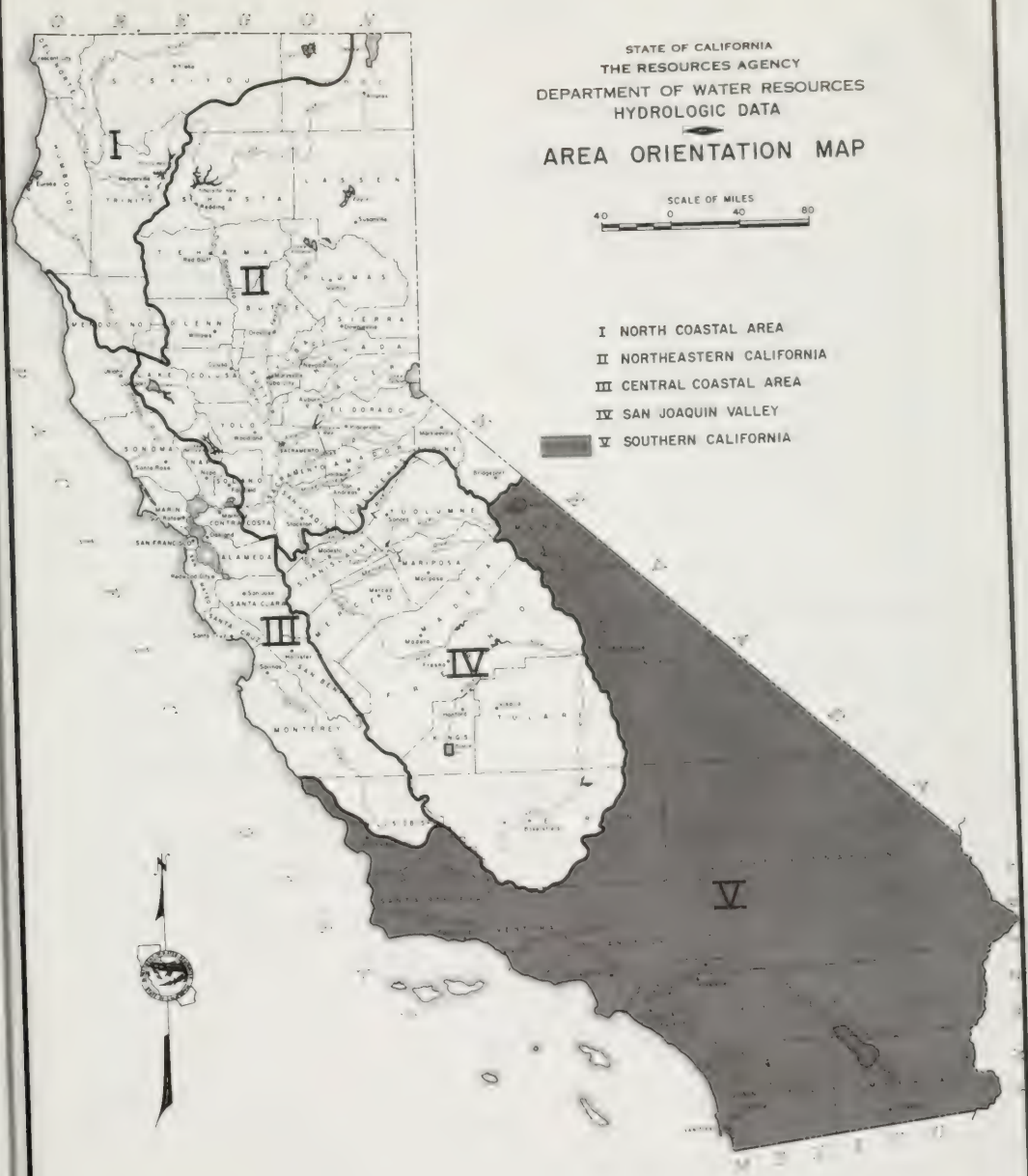
Appendix B - SURFACE WATER FLOW

Appendix C - GROUND WATER MEASUREMENTS

Appendix D - SURFACE WATER QUALITY

Appendix E - GROUND WATER QUALITY





# METRIC CONVERSION TABLE

ENGLISH UNIT	EQUIVALENT METRIC UNIT
Inch (in)	2.54 Centimeters
Foot (ft)	0.3048 Meter
Mile (mi)	1.609 Kilometers
Acre	0.405 Hectare
Square mile (sq. mi.)	2.590 Square kilometer
U. S. gallon (gal)	3.785 Liters
Acre foot (acre-ft)	1,233.5 Cubic meters
U. S. gallon per minute (gpm)	0.0631 Liters per second
Cubic feet per second (cfs)	1.7 Cubic meters per minute

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Central Coastal Drainage Province (T)
- 2 Names and Areal Code Numbers of Hydrologic Areas,  
Los Angeles Drainage Province (U)
- 3 Names and Areal Code Numbers of Hydrologic Areas,  
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- 4 Names and Areal Code Numbers of Hydrologic Areas,  
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- 5 Names and Areal Code Numbers of Hydrologic Areas,  
Santa Ana Drainage Province (Y)
- 6 Names and Areal Code Numbers of Hydrologic Areas,  
San Diego Drainage Province (Z)

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Long Beach Water Department

Los Angeles County Flood Control District

Los Angeles Department of Water and Power

Orange County Flood Control District

Orange County Water District

Riverside County Flood Control and  
Water Conservation District

San Bernardino County Flood Control District

San Luis Obispo County Flood Control and  
Water Conservation District

United Water Conservation District, Ventura County

U. S. Geological Survey, Southern California  
Subdistrict Office

Ventura County Flood Control District





#### ABSTRACT

Appendix E to Volume V, Bulletin No. 130-65, contains data on the chemical, physical, and radiological characteristics of the ground water in Southern California for the 1964-65 water year. Figures show Southern California area and drainage province boundaries.

## INTRODUCTION

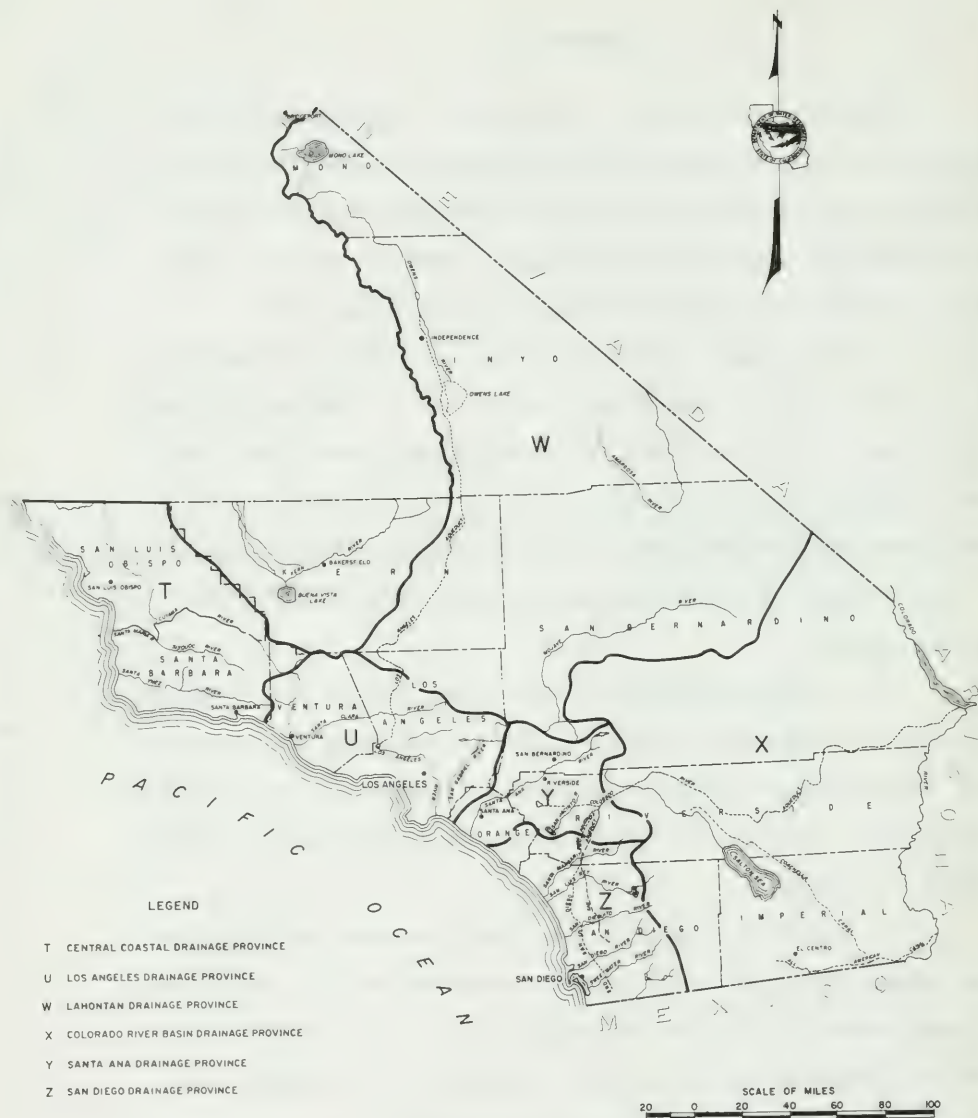
Appendix E to Volume V of Bulletin No. 130-65 contains all ground water analyses compiled by the Department of Water Resources during the 1964-65 water year. The data presented are measured values of the chemical, physical, and radiological characteristics of ground water throughout the Southern California area (see Figure 1).

Quality data are tabulated for approximately 4,000 samples of ground water collected from wells and springs in the Southern California area. About 1,000 of these are in the Department's Ground Water Quality Data Program. The remainder were sampled by many cooperating agencies and by various Department units conducting special investigations. Many of these analyses data were generously supplied by other public and private agencies.

The Ground Water Quality Data Program consists of a selection of wells to be sampled, regular collection of samples by the Department and by cooperators, laboratory analyses by the Department or cooperators, examination of the data to note trends or significant changes, and publication of the data.

The sampling program is periodically reviewed, and wells that are found to be out of production for an extended period or can no longer be sampled are deleted. They are replaced with wells selected on the basis of continuity of the records of analysis, ease of sampling, and availability of construction data and geologic logs.

Tables E-1 through E-4 contain detailed information on ground water quality in the six drainage provinces shown on Figure 2.



## LOCATION OF DRAINAGE PROVINCE BOUNDARIES

## MEASUREMENT TECHNIQUES

The effective use of ground water quality data depends on the accuracy, precision, and availability of the data. To ensure accuracy, certain methods and procedures have been established, and to ensure availability, coding systems have been developed.

The measurement techniques followed include sampling, analyses, and reporting procedures used to obtain the data presented in this appendix. Definitions of the terms used, field and laboratory methods and procedures, accuracy of the reported results, significant numbers retained, limitations of the data, and coding are discussed below.

### Definitions

The following definitions will assist the reader in understanding the terms used in this appendix.

Water Year is the 12-month period from October 1 of any year through September 30 of the following year, and is designated by the calendar year in which it ends.

Ground Water is the water below the ground surface in the zone of saturation that is or may be made available for use from wells and springs.

Standard Methods are the methods of analysis for substances in water adopted jointly by the American Public Health Association, American Water Works Association, and Water Pollution Control Federation. They represent the best current analytic procedures and are published as "Standard Methods for the Examination of Water and Waste Water". The current publication is the 12th edition, dated 1965.



Trace Elements Analysis is the quantitative spectrographic estimation of metallic elements which include the following metals: aluminum (Al), beryllium (Be), bismuth (Bi), cadmium (Cd), chromium (Cr), copper (Cu), iron (Fe), gallium (Ga), germanium (Ge), manganese (Ma), molybdenum (M ), nickel (Ni), lead (Pb), titanium (Ti), vanadium (V), and zinc (Zn); reported as parts per billion (ppb).

Radioassays are the radiological analyses which give the count of radioactive events in samples of water within a measured interval of time expressed as picocuries per liter (pc/l) and reported as plus or minus the statistical deviation calculated at a confidence level of 95 percent.

Synthetic Detergents are a class of chemical compounds resembling soap that contain surface-active agents and other materials designed to disperse and emulsify oil, grease, and soil particles. The surface-active agents most widely used in most synthetic detergents are the linear alkylate sulfonates.

#### Methods and Procedures

Because methods of sampling may affect the analysis of the sample, an explanation of sampling procedures established for ground water sample collection is given below.

#### Field Procedures

Ground water samples were collected in chemically clean plastic containers of gallon or half-gallon capacity depending upon the type of constituents to be determined. Samples were preferably taken from the nearest tap on the system beyond the pump discharge valve, after at least

five minutes of pumping. Containers were thoroughly rinsed with the water sampled before collecting the sample and afterward tightly capped. Observations of color, odor, taste, and temperature were recorded, together with significant environmental conditions.

Separate samples were collected for radiological, trace elements, or other special determinations.

### Laboratory Procedures

Methods of mineral, bacterial, and radiological analyses used by the Department of Water Resources, Southern District, are generally those described in the American Public Health Association, American Water Works Association, and Water Pollution Control Federation publication "Standard Methods for the Examination of Water and Waste Water", 12th Edition, 1965. In some cases, the methods described in the following publications also have been used:

U. S. Geological Survey, "Methods for Collection and Analyses of Water Samples", Water Supply Paper 1454, 1960

U. S. Public Health Service, Taft Sanitary Engineering Center, "Taft Method Analytical Procedure, Alkyl Benzene Sulfonate Determination", 1964

### Reporting Methods

Individual chemical constituents of ground water analyses in Table E-1 are reported as parts per million (ppm). Machine methods of data processing are being developed, and all information in Table E-1 has been tabulated on data processing machines. Thus, the Department is able to supply precisely the data that is requested by users.

Trace elements analyses are reported in Table E-2 as parts per billion (ppb). These analyses were performed by the U. S. Geological Survey Laboratory in Sacramento, California. Limitations in the precision of measurements by spectrographic analysis frequently require the reporting of results as less than or more than the amounts presented, as indicated in the footnotes accompanying the table.

Radiological analyses for ground water are reported in picocuries per liter (pc/l) in Table E-3. The analyses were performed by the State Department of Public Health, Sanitation and Radiation Laboratory, Berkeley, California. These ground water samples were given analyses for alpha and beta activity.

Analyses for synthetic detergents and phosphate ( $PO_4$ ) in ground water are shown in Table E-4, and are reported as parts per million.

In mid-1965, the soap and detergent industry replaced the main constituent of synthetic detergents, alkyl benzene sulfonate (ABS), with linear alkylate sulfonate (LAS). Because the standard methylene blue test for surface-active agents does not distinguish between the two types, the results are reported here as methylene blue active substances (MBAS) as ABS. The method of analysis used was the U. S. Public Health Service, Taft Engineering Center "Taft Method Analytical Procedure, Alkyl Benzene Sulfonate Determination", 1964.

#### Accuracy

The water samples presented to the chemist contain unknown dissolved substances. Some of these substances may interfere with the analyses of other constituents dissolved in the water. Standard methods

of analysis minimize errors due to interference. Laboratory procedures identify and measure individual constituents in orderly sequence in such a way that any significant interference can be allowed for or eliminated.

Various tests are available to the chemist to assure precision of the results. Foremost among these is the comparison termed "Balance" of the sums of equivalents per million of cations and anions, which are exactly equal in ionic solutions. The analysis is complete only after this test meets the following requirements:

- (1) Analyses of water having sums of anions less than 5.00 milliequivalents per liter shall not have a difference between total anions and total cations over 4 percent of the mean value.
- (2) Analyses of water having sums of anions from 5.00 milliequivalents per liter to 10.00 milliequivalents per liter shall not have a difference between total anions and total cations of over 3 percent of the mean value.
- (3) Analyses of water having sums of anions over 10.00 milliequivalents per liter shall not have a difference between total anions and total cations of over 2 percent of the mean value.

If the analysis does not meet this test, the constituents are rerun to verify the individual results, or until the reason for the discrepancy is ascertained.

Control of laboratory quality of analytical results is maintained by splitting selected authentic water samples, distributing these



to the laboratories, and comparing the analytic reports. From time to time, synthetic water reference samples supplied by U. S. Public Health Service or California Department of Public Health, containing known proportions of selected constituents, are used as tests of precision of any analytical method. These latter serve as a test of laboratory accuracy as well.

Trace elements analyses are reported to be quantitatively accurate to within 10 percent of the true value.

Radioactivity counts are measures of statistically random independent events. They are subject to environmental, instrumental, and procedural variations that must be estimated and accounted for to eliminate their influences on the reported results. The results are reported as the count plus or minus the counting error.

#### Significant Numbers

Analytical numerical results follow the recommendations for reporting of "Standard Methods". In general, the number of digits retained in chemical analyses reflects the precision of a determination of one-half unit in the last digit. Accuracy (reproducibility) is estimated at plus or minus 5 percent at critical limits for most constituents.

#### Limitations

To obtain a representative sampling of the ground water and of conditions in Southern California, an attempt is made to maintain sampling wells that are strategically located throughout a basin. However, because the program relies heavily upon data collected by cooperating agencies, the Department cannot always make the decisions as to which wells are selected and how often they are sampled.



The sampling that is conducted by the Department under the Ground Water Quality Sampling Program must of necessity be limited to wells in those areas that are considered of the greatest economic importance. Thus, the analyses reported cannot be considered equally representative of all parts of Southern California.

All samples are given a complete mineral analysis and, where indications warrant, special analyses are made, such as those for synthetic detergents and phosphates.

#### Coding

To facilitate the processing of basic hydrological data published in this appendix, number and letter codes are used to designate hydrologic areas and wells.

The areal designation coding system used is in the form A-11.A1. The letter to the left of the dash refers to the drainage province. (The boundaries of these provinces correspond to boundaries of the regional water quality control boards with the exception of the Los Angeles-Orange and Los Angeles-San Bernardino county boundaries.) Next are two digits to the left of the decimal; these refer to the hydrologic unit. To the right of the decimal is one letter which identifies the hydrologic subunit, and last, a number representing the hydrologic subarea. Plates 1 through 6 show the locations and areal code numbers of the hydrologic subdivisions in each drainage province.

The state well numbering system used in this report is based on township, range, and section subdivision of the Public Land Survey. It is the system used in all ground water investigations and in numbering all wells for which the data are published or filed by the Department of Water

Resources. In this report, the number of a well, assigned in accordance with this system, is referred to as the State Well Number.

Under the system each section is divided into sixteen 40-acre tracts lettered as shown on Figure 3. (Note than I and O are omitted in the grid.)

D	C	B	A
E	F	G	H
M	L	K	J
N	P	Q	R

Figure 3. Lettering used for tracts.

Wells are numbered within each 40-acre tract according to the chronological sequence in which they have been assigned state well numbers. For example, a well that is numbered 9N/32W-17G1 S, would be in Township 9 North, Range 32 West, Section 17, San Bernardino base and meridian, and would be further designated as the first well assigned a state well number in tract G. Well numbers in Southern California are referenced to the Mount Diablo base and meridian (M) or to the San Bernardino base and meridian (S).

On the areas where the Public Land Survey was not made, the Department has arbitrarily projected on maps the township and range lines. Maps showing well locations and State well numbers in the district area are on file at the District's office.

Ground water samples obtained from springs are identified by numbers similar to well numbers, except that an "S" is included after the 40-acre tract designation to signify a spring. An example of a number used to identify a sample from a spring is 16S/7E-4MS1 M.



DATA

GROUND WATER QUALITY





TABLE E-1  
ANALYSES OF GROUND WATER  
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per percent		million reactivity value		Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlor- ide Cl	Ni- trate NO <sub>3</sub>	Fuc- tide F	Bor- on B	Sil- ica SiO <sub>2</sub>	IDS Extr IDS Extr IDS Compd Cals	
PASO ROBLES HYDRO SUBUNIT																	
T09H0																	
SALINAS HYDRO UNIT																	
T0900																	
24S/11E-25N 1 M 5- 4-65	73	8.0	1650	59 2.94 16	36 2.96 16	275 11.96 67	4 0.10 1	0	317 5.20 29	377 7.85 44	174 4.91 27	4 0.06	0.2	1.18	--	1088 1086	295
24S/11E-26D 1 M 5- 3-65	65	7.7	1700	92 4.59 24	57 4.65 25	222 9.65 51	5 0.13 1	0	297 4.87 26	530 11.03 58	105 2.96 16	0.0	0.2	0.75	--	1166 1158 464	
24S/11E-33R 1 M 5- 3-65	65	7.9	560	48 2.40 38	32 2.63 41	30 1.30 20	2 0.05 1	0	268 4.39 68	48 1.00 15	35 0.99 15	5 0.08 1	0.2	0.12	--	370 332 252	
24S/11E-35A 1 M 5- 3-65	66	8.0	1250	46 2.30 16	38 3.13 22	195 8.48 61	3 0.08 1	0	411 6.74 49	187 3.89 28	113 3.19 23	3 0.05	0.4	0.67	--	830 786 272	
24S/15E-17F 1 M 10- 1-64	--	8.2	1575	52 2.59 14	95 7.81 43	172 7.48 42	3 0.08	0	476 7.80 43	301 6.27 35	135 3.81 21	5 0.08	0.4	1.45	40	970 1039 520	
25S/11E- 1A 1 M 5- 4-65	75	8.2	880	19 0.95 10	16 1.32 14	165 7.17 76	2 0.05 1	0	340 5.57 60	97 2.02 22	60 1.69 18	3 0.05 1	0.2	0.98	--	582 530 114	
25S/12E- 5R 1 M 5- 4-65	62	8.0	1300	55 2.74 18	80 6.58 42	142 6.17 40	4 0.10 1	0	581 9.52 62	166 3.46 22	85 2.40 16	0	0.2	0.53	--	841 818 466	
25S/12E- 8G 1 M 5- 4-65	65	8.0	1040	57 2.84 24	51 4.19 36	105 4.57 39	4 0.10 1	0	330 5.41 47	154 3.21 28	98 2.76 24	11 0.18 2	0.2	0.41	--	696 643 352	

T0900

SALINAS HYDRO UNIT

T09H0

PASO ROBLES HYDRO SUBUNIT

**TABLE E-1**  
ANALYSES OF GROUND WATER  
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million reactance value				Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	Total hardness as CaCO <sub>3</sub>
Date sampled				Ca	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>	Computed CaCO <sub>3</sub>
SALINAS HYDRO UNIT																
PASO ROBLES HYDRO SUBUNIT				T09H0												
T09H0				T0900												
25S/12E-27D 1 M 5- 4-65	78	8.2	630	24 1.20 17	26 2.14 30	86 3.74 52	2 0.05 1	0	292 4.79 69	53 1.10 16	36 1.02 15	2 0.03	0.2	0.43	--	422 373
25S/12E-28B 1 M 5- 4-65	72	7.9	1320	52 2.59 17	76 6.25 41	145 6.30 41	5 0.13 1	0	378 6.20 41	221 4.60 30	144 4.06 27	16 0.26 2	0.2	0.59	--	912 846
25S/12E-28N 1 M 10- 1-64	--	7.9	2012	324 16.17 69	0	168 7.30 31	3 0.08	0	481 7.88 33	479 9.97 42	206 5.81 24	6 0.10	0.6	0.60	32	1420 809
25S/12E-28N 4 M 5- 4-65	60	8.2	1280	106 5.29 35	57 4.69 31	113 4.91 33	2 0.05	0	386 6.33 43	264 5.50 37	103 2.90 20	0.0	0.2	0.30	--	834 835
25S/12E-33Q 2 M 5- 5-65	60	7.6	2175	153 7.63 29	112 9.21 34	227 9.87 37	2 0.05	0	655 10.74 39	415 8.64 32	277 7.81 29	0.0	0.1	0.58	--	1524 1509
25S/12E-35C 1 M 10-21-64	--	8.2	1840	92 4.59 20	59 4.85 21	300 13.04 58	6 0.15 1	--	575 9.42 42	345 7.18 32	196 5.53 25	12 0.19 1	0.2	1.09	--	1282 1294
25S/12E-35E 1 M 10-20-64	--	8.2	2880	166 8.28 28	100 8.22 28	300 13.04 44	3 0.08	--	386 6.33 21	548 11.41 39	401 11.31 38	26 0.42 1	0.2	1.24	--	1826 1735
25S/13E-19R 1 M 10- 1-64	--	8.2	535	37 1.85 33	27 2.22 40	34 1.48 26	2 0.05 1	0	235 3.85 70	7 0.15 3	38 1.07 19	27 0.44 8	0.6	0.12	40	280 328

## ANALYSES OF GROUND WATER

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million				Mineral constituents in parts per million					
				Calcium	Magne- sium	Sodium	Potas- sium	Carbon- ate	Bicar- bonate	Sulfate	Chlo- ride	Ni- trate	Flu- oride	Bor- on	Sili- ca	I.D.S. Evap 100°C as CaCO <sub>3</sub>	
Date sampled				Ca	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>		
PASO ROBLES HYDRO SUBUNIT																	
T09H0																	
T0900																	
25S/12E-8R 1 M 5- 4-65	64	8.0	1550	111 5.54 33	63 5.18 31	132 5.74 35	4 0.10 1	0	344 5.64 33	265 5.52 33	182 5.13 30	39 0.63 4	0.2	0.48	--	1074 966	536
25S/12E-16D 1 M 5- 3-65	--	8.0	665	35 1.75 24	34 2.80 38	62 2.70 37	2 0.05 1	0	258 4.23 58	62 1.29 18	59 1.66 23	6 0.10 1	0.2	0.40	--	400 387	228
25S/12E-16K 2 M 5- 4-65	68	8.1	610	34 1.70 26	35 2.88 44	44 1.91 29	2 0.05 1	0	269 4.41 69	14 0.29 5	50 1.41 22	18 0.29 5	0.2	0.35	--	385 330	229
25S/12E-16K 3 M 5- 4-65	70	8.2	750	42 2.10 24	45 3.70 43	62 2.70 31	3 0.08 1	0	299 4.90 59	45 0.94 11	74 2.09 25	21 0.34 4	0.2	0.30	--	484 440	290
25S/12E-16L 2 M 5- 4-65	64	7.5	2500	227 11.33 36	85 6.99 22	297 12.91 41	4 0.10 1	0	622 10.19 33	692 14.41 46	234 6.60 21	2 0.03 1	0.2	1.18	--	2030 1848	917
25S/12E-26L 1 M 10-21-64	--	8.0	480	33 1.65 30	24 1.97 36	40 1.74 32	2 0.05 1	--	234 3.84 71	26 0.54 10	34 0.96 18	6 0.10 2	0.2	0.29	--	316 280	181
5- 5-65	70	8.1	520	36 1.80 32	26 2.14 38	39 1.70 30	2 0.05 1	0	244 4.00 72	19 0.40 7	41 1.16 21	0.0	0.2	0.23	--	326 283	197
25S/12E-26N 1 M 10-20-64	70	8.3	600	20 1.00 14	20 1.64 23	99 4.30 62	2 0.05 1	5 0.17 2	278 4.56 67	54 1.12 16	32 0.90 13	5 0.08 1	0.2	0.74	--	408 375	132

**TABLE E-1**  
ANALYSES OF GROUND WATER  
CENTRAL COASTAL DRAINAGE PROVINCE (IT)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					Mineral constituents in parts per million																		
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	TDS Evap 180°C Evap 105°C Computed CaCO <sub>3</sub>											
Date sampled																											
PASO ROBLES HYDRO SUBUNIT														T09H0													
SALINAS HYDRO UNIT														T0900													
25S/14E-33Q 1 M 10- 8-64	--	8.2	660	32 1.60 23	22 1.81 26	82 3.57 51	3 0.08 1	0	313 5.13 75	45 0.94 14	25 0.71 10	3 0.05 1	--	428 367	171												
26S/12E-3H 2 M 4-26-65	--	8.7	880	35 1.75 18	28 2.30 23	132 5.74 58	3 0.08 1	24 0.80 8	183 3.00 31	134 2.79 29	108 3.05 32	0	0.1	562 555	203												
26S/12E-3K 3 M 4-26-65	--	8.2	530	39 1.95 34	22 1.81 32	39 1.70 30	9 0.23 4	0	230 3.77 65	15 0.31 5	58 1.64 28	7 0.11 2	--	316 302	188												
26S/12E-3L 1 M 4-26-65	--	8.1	1430	91 4.54 28	48 3.95 24	170 7.39 45	0 0.49 3	0	328 5.38 33	274 5.70 35	183 5.16 32	0	0.2	986 947	425												
26S/12E-5A 2 M 12-18-64	--	7.8	800	54 2.69 30	52 4.28 48	43 1.87 21	2 0.05 1	0	241 3.95 45	150 3.12 36	53 1.49 17	10 0.16 2	0.1	554 483	349												
26S/12E-9L 1 M 4- 1-65	--	7.5	972	66 3.29 33	28 2.30 23	98 4.26 43	2 0.05 1	0	303 4.97 50	115 2.39 24	87 2.45 25	10 0.16 2	0.5	590 556	280												
26S/12E-9L 2 M 4- 1-65	--	7.4	1203	83 4.14 33	35 2.88 23	125 5.44 43	2 0.05 1	0	361 5.92 47	146 3.04 24	116 3.27 26	18 0.29 2	0.6	735 703	351												
26S/12E-9R 1 M 5- 5-65	66	7.6	1280	95 4.74 31	57 4.69 31	135 5.87 38	2 0.05 1	0	494 8.10 54	130 2.71 18	145 4.09 27	14 0.23 2	0.1	842 821	472												



TABLE E-1  
ANALYSES OF GROUND WATER  
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent		million		Mineral constituents in parts per million						
				Calcium M g	Magne- sium M g	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate No. 3	Fer- rite No. 3	Sil- ica SiO <sub>2</sub>	IDS Ex- posed Computed	Hard- ness on Com- puted		
Date sampled				Ca	Mg	Na	K				Cl	No. 3	No. 3	No. 3	No. 3	No. 3		
PASO ROBLES HYDRO SUBUNIT				T09H0				SALINAS HYDRO UNIT									T0900	
26S/12E-16C 4 M 5- 5-65	70	7.7	1140	108 5.39 45	41 3.37 28	76 3.30 27	2 0.05	0	293 4.80 39	98 2.04 17	142 4.00 32	91 1.47 12	0.1	0.30	--	710 438		
26S/12E-21D 1 M 5- 6-65	--	8.1	1900	72 3.59 17	45 3.70 17	320 13.91 65	4 0.10	0	573 9.39 43	218 4.54 21	275 7.76 36	0.0	1.0	1.28	--	1244 365 1218		
26S/12E-21L 1 M 5- 5-65	62	7.8	980	52 2.59 25	17 1.40 14	145 6.30 61	3 0.08 1	0	330 5.41 52	137 2.85 27	79 2.23 21	0.0	1.0	0.35	--	604 200		
26S/12E-22P 2 M 10- 9-64	--	7.8	625	32 1.60 22	23 1.89 26	89 3.87 52	2 0.05 1	0	295 4.84 66	18 0.37 5	67 1.89 26	11 0.18 2	0.6	0.31	--	432 175		
5- 6-65	--	8.1	660	38 1.90 26	24 1.97 27	77 3.35 46	2 0.05 1	0	290 4.75 64	36 0.75 10	68 1.92 26	0.0	0.2	0.30	--	426 194		
26S/12E-33B 2 M 5-28-65	--	7.5	1264	106 5.29 38	43 3.54 26	113 4.91 36	3 0.08 1	0	356 5.83 42	252 5.25 38	95 2.68 19	1 0.02	0.9	0.44	--	820 442		
26S/12E-33Q 2 M 5- 6-65	64	7.8	680	75 3.74 52	28 2.30 32	25 1.09 15	1 0.03	0	297 4.87 69	38 0.79 11	50 1.41 20	0.0	0.2	0.12	--	789 464 363		
26S/13E- 4J 1 M 10- 8-64	--	8.1	1497	111 5.54 36	33 2.71 17	165 7.17 46	4 0.10 1	0	378 6.20 40	280 5.83 38	109 3.07 20	18 0.29 2	0.3	1.25	50	965 413 957		

**TABLE E-1**  
ANALYSES OF GROUND WATER  
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (microhmhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reactance value				Mineral constituents in parts per million								
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fuo- ride F	Boron B	Sul- fur S O <sub>2</sub>	Total I.D.S. Evap 105°C as Computed CaCO <sub>3</sub>				
PASO ROBLES HYDRO SUBUNIT				SALINAS HYDRO UNIT										T0900						
T09H0																				
26S/14E-16R 1 M 4-20-65	--	7.8	673	21 1.05 15	6 0.49 7	119 5.17 76	3 0.08 1	0	284 4.65 68	39 0.81 12	43 1.21 18	8 0.13 2	0.6	0.43	--	422 380	77			
26S/14E-34D 1 M 10- 8-64	--	7.9	435	30 1.50 31	17 1.40 29	44 1.91 39	3 0.08 2	0	170 2.79 58	29 0.60 13	45 1.27 27	8 0.13 3	0.8	0.12	--	302 260	145			
26S/15E- 2N 1 M 10- 9-64	--	8.1	2158	36 1.80 8	7 0.58 3	440 19.13 89	3 0.08	0	317 5.20 24	528 10.99 51	184 5.19 24	1.0 0.02	0.2	1.17	--	1396 1356	119			
26S/15E-20N 1 M 10- 9-64	79	7.8	374	41 2.05 53	6 0.49 13	29 1.26 32	3 0.08 2	0	151 2.47 63	33 0.69 18	22 0.62 16	10 0.16 4	0.1	0.05	--	241 218	127			
26S/15E-28Q 2 M 10- 8-64	77	7.6	4205	360 17.96 35	142 11.68 22	510 22.17 43	6 0.15	0	327 5.36 11	1276 26.57 52	663 18.70 37	14 0.23	0.7	1.34	--	3280 3134	1483			
26S/16E-31B 1 M 10- 7-64	--	8.0	1490	32 1.60 9	24 1.97 11	315 13.70 78	12 0.31 2	0	338 5.54 32	368 7.66 44	115 3.24 19	55 0.89 5	1.2	2.50	--	1084 1091	179			
27S/10E-15GS1 M 10-18-64	65	8.0	710	81 4.04 47	36 2.96 34	36 1.57 18	1 0.03	--	303 4.97 58	148 3.08 36	21 0.59 7	0.0 0.03	0.1	0.09	--	502 472	350			
27S/10E-15GS2 M 10-18-64	70	8.2	810	38 1.90 20	16 1.32 14	142 6.17 65	2 0.05 1	--	365 5.98 62	140 2.91 30	23 0.65 7	2 0.03	0.1	0.26	--	588 543	161			

TABLE E-1  
ANALYSES OF GROUND WATER  
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reactance value				Mineral constituents in parts per million					
				Calcium Mg	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Nit- rate NO <sub>3</sub>	Fuo- ride F	Bore- B	Sul- fo- S O <sub>2</sub>	Total Hardness as CaCO <sub>3</sub>	
PASO ROBLES HYDRO SUBUNIT																	
T09H0																	
T0900																	
27S/11E-16L 1 M 4-30-65	--	8.0	1060	162 8.08 60	54 4.44 33	22 0.96 7	1 0.03	0	7.39 55	247 5.14 38	32 0.90 7	0	0.4	0.08	--	842 740	627
27S/12E-3C 2 M 10- 1-64	--	7.9	752	58 2.89 37	38 3.13 40	42 1.83 23	2 0.05 1	0	308 5.05 65	15 0.31 4	81 2.28 29	9 0.15 2	0.4	0.10	48	473 445	301
5- 5-65	70	7.9	700	54 2.69 34	38 3.13 40	47 2.04 26	2 0.05 1	0	315 5.16 63	13 0.27 3	95 2.68 33	2 0.03	0.1	0.13	--	452 406	291
27S/12E-4P 2 M 5- 5-65	62	8.0	900	54 2.69 27	22 1.81 18	125 5.44 54	2 0.05 1	0	338 5.54 56	133 2.77 28	57 1.61 16	0.0	0.6	0.37	--	576 560	225
27S/12E-9D 2 M 5- 6-65	--	7.9	875	85 4.24 41	49 4.03 39	49 2.13 20	2 0.05	0	361 5.92 57	110 2.29 22	75 2.12 20	2 0.03	0.1	0.20	--	640 550	414
27S/12E-21G 1 M 5- 6-65	61	7.7	1460	94 4.69 28	77 6.33 38	125 5.44 33	3 0.08	0	429 7.03 44	237 4.93 31	128 3.61 22	35 0.56 3	0.2	0.42	--	990 911	551
27S/12E-21N 1 M 10- 1-64	--	7.8	1075	122 6.09 49	52 4.28 35	46 2.00 16	1 0.03	0	331 5.43 45	244 5.08 42	55 1.55 13	5 0.08 1	0.4	0.11	32	787 720	519
5- 6-65	60	8.1	1035	129 6.44 51	50 4.11 33	45 1.96 16	1 0.03	0	367 6.02 47	248 5.16 41	52 1.47 12	3 0.05	0.2	0.17	--	706 709	528

**TABLE E-1**  
ANALYSES OF GROUND WATER  
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents percent				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fuo- ride F	Boron B	SiO <sub>2</sub>	Total Inorganic Carbon TIC	
PASO ROBLES HYDRO SUBUNIT				T09H0										T0900			
27S/12E-29P 3 M 5- 6-65	61	7.6	1060	102 5.09 42	64 5.26 43	42 1.83 15	2 0.05	0	338 5.54 45	235 4.89 40	65 1.83 15	1 0.02	0.2	0.11	--	518	
27S/12E-32F 2 M 5- 6-65	60	7.5	930	85 4.24 38	61 5.02 45	41 1.78 16	2 0.05	0	329 5.39 49	194 4.04 37	50 1.41 13	3 0.05	0.2	0.14	--	463	
27S/12E-32Q 3 M 5- 7-65	60	7.6	770	64 3.19 36	50 4.11 46	35 1.52 17	1 0.03	0	250 4.10 47	157 3.27 38	46 1.30 15	3 0.05	0.2	0.08	--	365	
27S/12E-33N 1 M 5- 7-65	63	7.7	1220	106 5.29 37	75 6.17 44	59 2.57 18	3 0.08	0	420 6.88 48	231 4.81 34	89 2.51 18	2 0.03	0.1	0.14	--	573	
27S/13E- 9P 1 M 10- 4-64	--	8.2	650	13 0.65 9	9 0.74 10	130 5.65 80	2 0.05	0	359 5.88 84	20 0.42 6	21 0.59 8	5 0.08	0.3	0.37	45	70	
27S/15E-13A 1 M 10- 7-64	73	7.8	4595	205 10.23 20	81 6.66 13	770 33.48 66	5 0.13	0	301 4.93 10	947 19.72 39	890 25.10 50	47 0.76 2	0.7	1.34	--	845	
27S/16E-23N 1 M 10- 7-64	--	8.0	630	28 1.40 19	11 0.90 12	116 5.04 68	4 0.10	0	269 4.41 60	60 1.25 17	53 1.49 20	10 0.16 2	0.8	0.58	--	115	
28S/12E- 4G 1 M 5- 6-65	60	7.4	660	61 3.04 40	38 3.13 41	32 1.39 18	1 0.03	0	263 4.31 58	103 2.14 29	37 1.04 14	0.0	0.2	0.05	--	309	
																402	



TABLE E-1  
ANALYSES OF GROUND WATER  
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million							
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	I.D.S. Exap. I.D.S. Exap. I.D.S.	Hardness Calc.
Date sampled																	
PASO ROBLES HYDRO SUBUNIT																	
T09H0																	
SALINAS HYDRO UNIT																	
T0900																	
28S/12E-4J 2 M 5- 6-65	60	7.5	680	64 3.19 42	39 3.21 42	26 1.13 15	1 0.03	0	231 3.79 49	141 2.94 38	33 0.93 12	4 0.06 1	0.2	0.14	--	464 422	320
28S/12E-10H 3 M 5- 6-65	64	7.8	860	77 3.84 39	54 4.44 45	37 1.61 16	2 0.05 1	0	351 5.75 58	89 1.85 19	71 2.00 20	14 0.23 2	0.2	0.12	--	550 517	414
28S/12E-10R 2 M 10- 9-64	--	7.9	868	79 3.94 40	49 4.03 41	40 1.74 18	1 0.03	0	323 5.29 55	134 2.79 29	52 1.47 15	2 0.03	0.5	0.08	27	578 543	399
5- 5-65	60	7.6	690	69 3.44 44	34 2.80 36	34 1.48 19	1 0.03	0	281 4.61 59	98 2.04 26	40 1.13 14	3 0.05 1	0.1	0.09	--	440 417	312
28S/12E-14J 2 M 5- 5-65	63	7.6	650	68 3.39 48	31 2.55 36	25 1.09 15	2 0.05 1	0	283 4.64 64	74 1.54 21	37 1.04 14	1 0.02	0.2	0.12	--	420 377	297
28S/12E-14R 1 M 5- 5-65	56	7.4	1000	98 4.89 44	52 4.28 39	43 1.87 17	2 0.05	0	328 5.38 49	154 3.21 29	76 2.14 20	15 0.24 2	0.1	0.11	--	660 601	459
28S/12E-24F 2 M 5- 5-65	66	7.7	560	50 2.50 41	28 2.30 38	30 1.30 21	1 0.03	0	224 3.67 61	67 1.39 23	29 0.82 14	7 0.11 2	0.2	0.08	--	350 322	240
28S/12E-25B 1 M 5- 5-65	61	7.4	580	63 3.14 50	26 2.14 34	23 1.00 16	1 0.03	0	232 3.80 62	68 1.42 23	28 0.79 13	7 0.11 2	0.4	0.04	--	380 330	264

**TABLE E-1**  
ANALYSES OF GROUND WATER  
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				Mineral constituents in parts per million															
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fuo- ride F	Boron B	Sul- fo S <sub>2</sub> O <sub>3</sub>	Total Hardness as CaCO <sub>3</sub>											
PASO ROBLES HYDRO SUBUNIT				SALINAS HYDRO UNIT												T0900											
T09H0																											
28S/13E-30N 1 M 5- 5-65	66	7.3	600	56 2.79 42	30 2.47 37	30 1.30 20	1 0.03	0	232 3.80 57	86 1.79 27	32 0.90 14	9 0.15 2	0.2	0.08	--	390 263											
28S/16E-14N 1 M 10- 7-64	--	7.9	565	55 2.74 42	29 2.38 36	33 1.43 22	1 0.03	0	219 3.59 48	94 1.96 26	66 1.86 25	8 0.13 2	0.8	0.07	--	404 256											
29S/13E- 5D 5 M 5- 4-65	61	7.1	940	80 3.99 38	57 4.69 45	41 1.78 17	0	0	299 4.90 48	170 3.54 35	59 1.66 16	10 0.16 2	0.1	0.04	--	600 434											
29S/13E- 8M 1 M 5- 4-65	65	7.5	650	74 3.69 52	15 1.23 17	48 2.09 30	1 0.03	0	303 4.97 71	40 0.83 12	39 1.10 16	6 0.10 1	0.1	0.03	--	400 246											
29S/13E- 8N 1 M 5- 3-65	65	7.5	680	77 3.84 54	15 1.23 17	47 2.04 29	1 0.03	0	306 5.02 71	41 0.85 12	40 1.13 16	6 0.10 1	0.1	0.05	--	400 254											
29S/13E-14B 1 M 5- 3-65	63	7.5	580	43 2.15 37	24 1.97 34	37 1.61 28	2 0.05	0	191 3.13 55	31 0.65 11	35 0.99 17	55 0.89 16	0.2	0	--	342 206											
29S/13E-18H 1 M 5- 4-65	63	7.5	730	58 2.89 36	33 2.71 34	56 2.43 30	1 0.03	0	315 5.16 66	62 1.29 16	46 1.30 17	6 0.10 1	0.1	0.06	--	420 280											
29S/13E-19H 1 M 5- 3-65	--	8.4	650	47 2.35 32	39 3.21 44	40 1.74 24	1 0.03	6 0.20 3	254 4.16 58	70 1.46 20	41 1.16 16	10 0.16 2	0.1	0.10	--	414 278 379											



ANALYSES OF GROUND WATER  
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				million reactance value				Mineral constituents in parts per million																																					
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	TDS Evaporated as Computed Ca+Mg	Total hardness as CaCO <sub>3</sub>																																				
PASO ROBLES HYDRO SUBUNIT																		SALINAS HYDRO UNIT																		T0900																	
T09H0																		T0900																		T0900																	
29S/13E-19H 2 M 5- 3-65	--	8.2	640	45 2.25 32	40 3.29 47	33 1.43 20	1 0.03	0	252 4.13 58	87 1.81 26	33 0.93 13	12 0.19 3	0.1	0.11	--	438 375	277																																				
29S/13E-21F 1 M 5- 3-65	58	7.6	570	98 4.89 77	11 0.90 14	13 0.57 9	1 0.03	0	276 4.52 73	38 0.79 13	12 0.34 5	34 0.55 9	0.1	0.06	--	354 343	290																																				

TABLE E-1  
ANALYSES OF GROUND WATER  
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					Mineral constituents in parts per million								
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	IDS Exposed as Computed CaCO <sub>3</sub>	Total hardness as CaCO <sub>3</sub>
POZO HYDRO SUBUNIT				SALINAS HYDRO UNIT										T0900			
T0910				T0900													
30S/15E-10G 2 M 10- 4-64	--	8.0	435	43 2.15 41	18 1.48 28	36 1.57 30	1 0.03 1	0	197 3.23 64	34 0.71 14	28 0.79 16	21 0.34 7	0.8	0.10	--	314 279	182
30S/15E-21C 1 M 10- 4-64	--	7.8	570	50 2.50 38	28 2.30 35	39 1.70 26	1 0.03	0	201 3.29 52	94 1.96 31	22 0.62 10	28 0.45 7	0.4	0.12	--	406 361	240

TABLE E-1  
ANALYSES OF GROUND WATER  
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reactance value				Mineral constituents in parts per million					
				Calcium Mg	Magne- sium	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- co SiO <sub>2</sub>	Yolo Hardness Evap 180°C Evap 105°C as Computed CaCO <sub>3</sub>	
Date sampled																	
CAMBRIA HYDRO SUBUNIT																	
SAN CARPOFORO HYDRO SUBAREA																	
T10A0																	
T1000																	
25S/ 6E-16A 2 M 10- 5-64	58	7.6	441	39 1.95 41	27 2.22 47	12 0.52 11	1 0.03 1	0	235 3.85 80	22 0.46 10	17 0.48 10	0.8 0.01	0.1	0.08	--	225 234	209
ARROYO DE LA CRUZ HYDRO SUBAREA																	
25S/ 6E-34K 1 M 10- 5-64	61	8.1	494	44 2.20 39	34 2.80 49	15 0.65 11	1 0.03 1	0	277 4.54 80	28 0.58 10	18 0.51 9	0.8 0.01	0.1	0.11	--	257 277	250
26S/ 8E- 6G 1 M 6-22-65	--	8.1	586	44 2.20 33	42 3.45 52	21 0.91 14	1 0.03	0	305 5.00 77	35 0.73 11	25 0.71 11	3 0.05 1	0.2	0.09	--	330 321	283
SAN SIMEON HYDRO SUBAREA																	
26S/ 6E-11B 1 M 7-22-65	--	7.5	1197	24 1.20 11	45 3.70 34	139 6.04 55	1 0.03	0	107 1.75 16	35 0.73 7	291 8.21 75	17 0.27 2	0.2	0.05	--	674 605	245
26S/ 6E-11B 2 M 9-21-65	--	7.9	1195	24 1.20 11	46 3.78 34	139 6.04 55	1 0.03	0	109 1.79 16	33 0.69 6	296 8.35 75	14 0.23 2	0.2	0.05	--	683 607	249
26S/ 6E-11H 1 M 7-21-65	--	8.4	977	34 1.70 16	52 4.28 41	100 4.35 42	1 0.03	17 0.57 6	315 5.16 51	8 0.17 2	150 4.23 42	1 0.02	0.6	0.13	--	500 519	299

**TABLE E-1**  
ANALYSES OF GROUND WATER  
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million reactance value				Mineral constituents in parts per million															
				Calcium Co	Magne- sium -Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fuo- ride F	Boron B	Sul- co SO <sub>2</sub>	I.O.S. Evap 180°C Evap 105°C Computed CaCO <sub>3</sub>	Total hardness as CaCO <sub>3</sub>						
Date sampled																							
CAMBRIA HYDRO SUBUNIT																							
SAN SIMEON HYDRO SUBAREA																							
T10A0				T10A3																			
26S/ 7E-26C 1 M 7-21-65	--	7.8	857	70 3.49 38	49 4.03 43	39 1.70 18	0.05 1	2 1	0	354 5.80 64	31 0.65 7	93 2.62 29	0	0.3	0.07	--	494 458					376	
26S/ 8E-19CS1 M 3-23-65	--	8.2	610	42 2.10 30	27 2.22 32	61 2.65 38	0.03 0.03	1 1	0	285 4.67 67	62 1.29 19	19 0.54 8	26 0.42 6	0.4	0.15	--	398 379					216	
27S/ 8E- 6H 2 M 6-22-65	--	7.8	516	39 1.95 35	36 2.96 52	16 0.70 12	1 0.03	1 1	0	290 4.75 83	20 0.42 7	18 0.51 9	1 0.02	0.2	0.09	--	250 274					246	
27S/ 8E- 9P 2 M 10- 5-64	62	8.0	529	38 1.90 33	37 3.04 53	18 0.78 14	1 0.03	1 1	0	260 4.26 75	40 0.83 15	20 0.56 10	1.8 0.03 1	0.2	0.16	--	283 284					247	
SANTA ROSA HYDRO SUBAREA				T10A4																			
27S/ 8E-21R 3 M 10- 6-64	58	7.5	1176	84 4.19 30	83 6.83 50	61 2.65 19	4 0.10 1	4	0	545 8.93 66	102 2.12 16	91 2.57 19	0	0.3	0.21	--	688 693					551	
27S/ 8E-36LS1 M 3-23-65	--	8.2	520	16 0.80 12	66 5.43 82	9 0.39 6	1 0.03	1 0.03	0	377 6.18 93	3 0.06 1	14 0.39 6	1 0.02	0.1	0.21	--	298 296					312	

## ANALYSES OF GROUND WATER

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in				parts per million equivalents per million reactance value				Mineral constituents in parts per million						
				Calcium	Magne sium	Sodium	Potash sium	Carbon ate	Bicar- bonate	Sulfate	Chloride	Ni- trate	Flu- oride	Boron	Sili- ca	IO <sub>3</sub>	Total hardness as CaCO <sub>3</sub>	
Date sampled				Ca	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>	Computed		
CAMBRIA HYDRO SUBUNIT																		
VILLA HYDRO SUBAREA																		
T10A0																		
T10A5																		
SAN LUIS OBISPO HYDRO UNIT																		
T1000																		
28S/ 9E-26E 1 M 10- 6-64	74	7.8	1735	88 4.39 24	86 7.07 38	162 7.04 38	0.03	1	0	478 7.83 42	52 1.08 6	280 7.90 43	107 1.73 9	0.4	0.53	--	1006 1012	573
CAYUCOS HYDRO SUBAREA																		
28S/10E-32A 3 M 10- 6-64	63	8.1	1335	73 3.64 23	90 7.40 47	100 4.35 28	11 0.28 2	0	0	664 10.88 69	37 0.77 5	133 3.75 24	22 0.35 2	0.3	0.20	--	768 793	552
28S/10E-33E 3 M 8- 3-65	--	8.2	3739	143 7.14 19	193 15.87 42	340 14.78 39	2 0.05	0	0	564 9.24 24	123 2.56 7	883 24.90 66	80 1.29 3	0.5	0.31	--	2310 2042	1151
28S/10E-33E 6 M 7-27-65	--	8.1	1307	70 3.49 25	81 6.66 47	90 3.91 28	1 0.03	0	0	507 8.31 59	36 0.75 5	163 4.60 33	27 0.44 3	0.5	0.23	--	750 718	508
28S/10E-33E10 M 8- 3-65	--	7.8	1268	71 3.54 25	77 6.33 46	92 4.00 29	1 0.03	0	0	546 8.95 65	33 0.69 5	135 3.61 28	15 0.24 2	0.5	0.26	--	716 693	494
28S/10E-33L 1 M 8- 3-65	--	8.4	1255	66 3.29 24	73 6.00 44	97 4.22 31	1 0.03	17 0.57 4	17 0.79 58	475 7.79 58	36 0.75 6	136 3.84 28	35 0.56 4	0.5	0.25	--	718 695	465



TABLE E-1  
ANALYSES OF GROUND WATER  
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent					Mineral constituents in parts per million								
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	TDS Evap 180°C Evap 103°C Computed CaCO <sub>3</sub>						
				SAN LUIS OBISPO HYDRO UNIT																		
				T10A0					T10A7													
				T1000																		
29S/10E- 3G 1 M 8- 3-65	--	8.2	735	18 0.90 13	54 4.44 62	42 1.83 26	0	0	228 3.74 51	13 0.27 4	111 3.13 43	8 0.13 2	0.2	0.05	--	444 358 267						



ANALYSES OF GROUND WATER  
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reactance value				Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Barium	Silica	Evaporitic hardness	Evaporitic hardness		
Date sampled				Cc	Mg	No	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>	Computer	Table		
SAN LUIS OBISPO HYDRO SUBUNIT MORRO HYDRO SUBAREA																			
				T10B0				T10B1				T1000							
29S/10E-25D 1 M 10- 6-64	--	8.2	1857	114 5.69 28	9.13 45	124 5.39 27	2 0.05	0	467 7.65 38	110 2.29 11	360 10.15 50	12 0.19 1	0.3	0.11	--	1070 1063	742		
29S/10E-25D 3 M 4- 6-65	--	7.6	1686	107 5.34 29	102 8.39 46	100 4.35 24	2 0.05	0	535 8.77 49	112 2.33 13	235 6.63 37	16 0.26 1	0.4	0.16	--	1118 938	687		
29S/10E-25F 1 M 8- 3-65	68	8.2	1302	74 3.69 26	98 8.06 56	61 2.65 18	1 0.03	✓	553 9.06 62	106 2.21 15	118 3.33 23	2 0.03	0.4	0.11	--	735 732	588		
29S/10E-25F 4 M 8- 3-65	68	8.3	907	57 2.84 28	64 5.26 52	46 2.00 20	1 0.03	13 0.43 4	381 6.24 63	67 1.39 14	67 1.89 19	1 0.02	0.3	0.09	--	508 504	405		
CHORRO HYDRO SUBAREA				T10B2															
29S/11E-32M 1 M 10- 7-64	--	8.2	2561	87 4.09 14	164 13.49 47	252 10.96 38	6 0.15 1	0	744 12.19 42	149 3.10 11	488 13.76 47	3 0.05	0.2	0.14	--	1523 1510	880		
8- 3-65	67	8.4	1859	71 3.54 17	142 11.68 55	132 5.74 27	5 0.13 1	20 0.67 3	656 10.75 51	111 2.31 11	255 7.19 34	6 0.10	0.4	0.08	--	1113 1065	762		

**TABLE E-1**  
ANALYSES OF GROUND WATER  
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in							parts per million equivalents per percent			million per million value			Mineral constituents in parts per million				
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	T.O.S. Evap 100°C Computed	Total hardness as CaCO <sub>3</sub>				
SAN LUIS OBISPO HYDRO SUBUNIT																					
LOS OSOS HYDRO SUBAREA																					
T10B0																					
T10B3																					
SAN LUIS OBISPO HYDRO UNIT																					
T1000																					
30S/10E-13A 1 M 8- 3-65	--	7.8	369	14 0.70	11 0.90	36 1.57	1 0.03	1	0	44 0.72	8 0.17	58 1.64	45 0.73	0	--	240	80				
30S/10E-13A 2 M 8- 3-65	--	7.1	612	28 1.40	16 1.32	57 2.48	1 0.03	1	0	34 0.56	23 0.48	140 3.95	21 0.34	0.02	--	340	136				
30S/10E-13A 6 M 8- 4-65	--	7.5	186	11 0.55	4 0.33	21 0.91	1 0.03	1	0	61 1.00	3 0.06	27 0.76	2 0.03	0.02	--	160	44				
30S/10E-13B 2 M 8- 3-65	--	7.2	196	12 0.60	4 0.33	21 0.91	1 0.03	1	0	52 0.85	6 0.12	30 0.85	5 0.08	0.02	--	92	47				
30S/10E-13L 1 M 8- 4-65	66	7.6	199	4 0.20	6 0.49	25 1.09	1 0.03	1	0	41 0.67	3 0.06	36 1.02	6 0.10	0.02	--	160	35				
30S/10E-23H 1 M 8- 5-65	--	7.6	344	10 0.50	11 0.90	39 1.70	1 0.03	1	0	66 1.08	16 0.33	56 1.58	12 0.19	0.02	--	190	70				
30S/11E- 7G 1 M 8- 3-65	--	7.7	212	9 0.45	7 0.58	19 0.83	1 0.03	1	0	47 0.77	6 0.12	27 0.76	17 0.27	0	--	130	52				
30S/11E- 7G 3 M 8- 3-65	--	7.9	187	8 0.40	6 0.49	18 0.78	1 0.03	1	0	41 0.67	5 0.10	26 0.73	13 0.21	0	--	120	45				

TABLE E-1  
ANALYSES OF GROUND WATER  
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				million value				Mineral constituents in parts per million				
				Calcium Mg	Magne- sium	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fus- sile F	Boron B	Sol- co S <sub>02</sub>	Hard- ness lbs	TDS Evap 180°C Evap 105°C Computer Calc			
Date sampled				Cc																
SAN LUIS OBISPO HYDRO SUBUNIT T1080 T1083 T1000																				
LOS OSOS HYDRO SUBAREA																				
30S/11E-7N 1 M 10-7-64	64	7.8	251	12 0.60 25	11 0.90 38	20 0.87 36	1 0.03 1	0	83 1.36 56	4 0.08 3	33 0.93 38	3 0.05 2	0	0	--		138	75		
30S/11E-8J 1 M 10-7-64	65	8.1	3172	112 5.59 17	158 12.99 40	318 13.83 43	1 0.03	0	362 5.93 18	94 1.96 6	820 23.12 70	113 1.82 6	1.1	0.40	--		1849	930		
30S/11E-18Q 1 M 10-7-64	68	7.5	280	10 0.50 20	8 0.66 27	29 1.26 51	1 0.03 1	0	35 0.57 23	12 0.25 10	44 1.24 50	26 0.42 17	0	0	--		158	58		
30S/11E-18R 1 M 8-5-65	--	7.0	198	7 0.35 20	6 0.49 28	21 0.91 52	0	0	31 0.51 29	5 0.10 6	39 1.10 63	3 0.05 3	0.1	0	--		131	42		
SAN LUIS OBISPO CR HYDRO SUBAREA T1084																				
30S/12E-29Q 1 M 10-7-64	64	8.4	2330	136 6.79 28	88 7.24 30	230 10.00 42	1 0.03	13 0.43 2	478 7.83 33	39 0.81 3	490 13.82 59	38 0.61 3	0.5	0.04	--		1339	702		
31S/12E-12N 1 M 10-13-64	--	7.5	2378	--	--	--	--	0	252 4.13	--	658 18.56	--	--	--	--			957		
31S/12E-32O 2 M 10-14-64	--	8.0	2755	132 6.59 23	111 9.13 32	296 12.87 45	8 0.20 1	0	558 9.15 32	85 1.77 6	625 17.63 62	1.0 0.02	0	0.34	--		1695	787		

TABLE E-1  
ANALYSES OF GROUND WATER  
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per percent reactance value		Mineral constituents in parts per million							
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Baron B	Sili- co SiO <sub>2</sub>	IO <sub>3</sub> - Extr. As <sup>+</sup> Extr. As <sup>-</sup>	Total hardness as CaCO <sub>3</sub>	
SAN LUIS OBISPO HYDRO SUBUNIT T1080																		
SAN LUIS OBISPO CR HYDRO SUBAREA T1084																		
31S/12E-32D 2 M 3-15-65	--	7.6	2380	114 5.69 24	86 7.07 30	252 10.96 46	0.20 1	8	0	592 9.70 41	67 1.39 6	454 12.80 54	0	0.5	0.52	39	1312	639
PISMO HYDRO SUBAREA T1086																		
31S/13E-29F 5 M 10- 9-64	63	8.0	858	74 3.69 36	63 5.18 51	30 1.30 13	0.03	1	0	437 7.16 72	81 1.69 17	36 1.02 10	6.4 0.10 1	0.4	0.13	--	514 507	444
32S/12E-13J 2 M 10-13-64	--	8.1	3900	198 9.88 21	151 12.42 26	565 24.57 52	15 0.38 1	15	0	687 11.26 24	281 5.85 13	1039 29.30 63	3 0.05	0.1	0.64	--	3024 2590	1116
32S/12E-24B 1 S 5- 1-65	--	8.6	2700	149 7.44 24	80 6.58 22	367 15.96 52	18 0.46 2	37 1.23 4	374 6.13 20	179 3.73 12	693 19.54 64	0	0.1	0.40	--	1628 1707	702	
32S/12E-24B 2 S 4-30-65	--	8.3	1155	81 4.04 35	37 3.04 26	98 4.26 37	6 0.15 1	10 0.33 3	198 3.25 28	163 3.39 29	162 4.57 40	1 0.02	0.5	0.08	--	800 656	354	
32S/12E-24B 3 S 5- 1-65	--	8.2	960	49 2.45 22	64 5.26 47	79 3.43 30	5 0.13 1	0	0	355 5.82 52	155 3.23 29	73 2.06 18	3 0.05	0.1	0.13	--	638 603	386



TABLE 2  
ANALYSES OF GROUND WATER  
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				Mineral constituents in parts per million					
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	Total Hardness as CaCO <sub>3</sub>	
SAN LUIS OBISPO HYDRO UNIT																	
T10C0																	
T10C1																	
T10K0																	
ARROYO GRANDE HYDRO SUBUNIT																	
ARROYO GRANDE HYDRO SUBAREA																	
32S/12E-24R 1 S 6-16-65	67	7.9	1500	69 3.44 22	63 5.18 33	160 6.96 44	0.15 0.15 1	6	0	341 5.59 35	110 2.29 14	268 7.56 47	33 0.53 3	0.1	0.12	--	898 877
32S/12E-24R 2 S 6-16-65	64	7.9	745	61 3.04 36	40 3.29 39	45 1.96 24	0.05 0.05 1	2	0	226 3.70 44	132 2.75 33	64 1.80 21	10 0.16 2	0.1	0.10	--	500 465
32S/12E-24R 3 S 6-16-65	66	7.7	1140	116 5.79 45	52 4.28 33	63 2.74 21	0.08 0.08 1	3	0	403 6.61 50	168 3.50 27	103 2.90 22	5 0.08 1	0.2	0.08	--	748 708
32S/13E-29G 1 M 10-13-64	--	7.6	869	82 4.09 44	40 3.29 36	42 1.83 20	2 0.05 1	2	0	261 4.28 47	136 2.83 31	48 1.35 15	44 0.71 8	0.4	0.06	37	670 560
32S/13E-30F 1 S 5-28-65	64	11.4	2620	339 16.92 61	22 1.81 6	205 8.91 32	10 0.26 1	124 4.13 16	0	192 4.00 16	596 16.81 66	23 0.37 1	0.1	0.12	--	2032 1511	
32S/13E-30F 2 S 5-28-65	63	8.1	865	75 3.74 39	43 3.54 37	52 2.26 23	3 0.08 1	0	0	262 4.29 46	140 2.91 31	59 1.66 18	31 0.50 5	0.1	0.10	--	552 532
32S/13E-30F 3 S 5-28-65	68	8.0	1060	109 5.44 45	54 4.44 37	49 2.13 18	4 0.10 1	0	0	378 6.20 51	188 3.91 32	73 2.06 17	0	0.2	0.15	--	688 663
32S/13E-30H 2 M 10-13-64	--	7.9	690	53 2.64 35	27 2.22 30	58 2.52 34	3 0.08 1	0	0	94 1.54 21	80 1.67 23	71 2.00 28	127 2.05 28	0.1	0.06	--	610 465

**TABLE E-1**  
ANALYSES OF GROUND WATER  
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million							Mineral constituents in parts per million						
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Na- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	TDS Evap 180°C Evap 105°C Computed	Total Hardness as CaCO <sub>3</sub>
Date sampled																	
SAN LUIS OBISPO HYDRO UNIT																	
T1000																	
T1001																	
32S/13E-30K 1 M 6-10-65	--	7.2	810	53 2.64 36	24 1.57	62 2.70 37	2 0.05 1	0	78 1.28 17	83 1.73 23	84 2.37 32	125 2.02 27	0	0.07	--	594 471	231
32S/13E-30K 5 M 6-10-65	69	7.7	1005	85 4.24 43	39 3.21 32	56 2.43 24	3 0.08 1	0	175 2.87 29	149 3.10 31	80 2.26 23	108 1.74 17	0.2	0.06	--	700 606	373
32S/13E-30K10 M 6-10-65	--	7.4	930	68 3.39 39	32 2.63 30	60 2.61 30	3 0.08 1	0	94 1.54 18	134 2.79 32	83 2.34 27	128 2.06 24	0.2	0.05	--	670 554	301
32S/13E-30L 1 M 10-13-64	--	8.2	1080	96 4.79 42	54 4.44 38	52 2.26 20	2 0.05	0	309 5.06 44	144 3.00 26	111 3.13 27	22 0.35 3	0.1	0.11	--	814 633	462
32S/13E-30N 1 S 6-11-65	65	8.6	1100	46 2.30 22	44 3.62 35	102 4.43 42	3 0.08	24 0.80 7	224 3.67 32	178 3.71 32	116 3.27 28	8 0.13 1	0.6	0.22	--	676 632	296
32S/13E-30N 2 S 6-16-65	67	7.9	1320	119 5.94 36	90 7.40 44	75 3.26 19	5 0.13 1	0	245 4.02 25	498 10.37 65	55 1.55 10	0	0.1	0.15	--	1020 963	668
32S/13E-30N 3 S 6-11-65	64	8.1	1145	97 4.84 36	75 6.17 45	57 2.48 18	3 0.08 1	0	423 6.93 50	231 4.81 35	73 2.06 15	0	0.1	0.08	--	804 744	551
32S/13E-30Q 2 M 6-10-65	--	7.5	1082	89 4.44 41	43 3.54 33	62 2.70 25	3 0.08 1	0	168 2.75 25	185 3.85 35	91 2.57 24	104 1.68 15	0.2	0.05	--	793 660	399



TABLE E-1  
ANALYSES OF GROUND WATER  
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fus- sile F	Boron B	Sol- to SO <sub>2</sub>	I.D.S. Exap-180C Exap-250C Compu- Calc-5	Temp Nordest Calc-5	
Date sampled																		
ARROYO GRANDE HYDRO SUBUNIT																		
ARROYO GRANDE HYDRO SUBAREA																		
T10C0																		
T10C1																		
SAN LUIS OBISPO HYDRO UNIT																		
T1000																		
32S/13E-30Q 4 M 6-10-65	--	7.4	1018	81 4.04 40	39 3.21 32	65 2.83 28	2 0.05	0	137 2.25 22	156 3.25 32	94 2.65 26	118 1.90 19	0.2	0.05	--	733 623	363	
32S/13E-31B 4 M 6- 4-65	--	7.4	1214	91 4.54 37	51 4.19 34	82 3.57 29	2 0.05	0	219 3.59 30	181 3.77 31	103 2.90 24	117 1.89 16	0.3	0.07	--	786 735	437	
32S/13E-31B 5 M 6- 5-65	--	7.4	1140	87 4.34 38	42 3.45 30	80 3.48 31	2 0.05	0	178 2.92 26	159 3.31 30	103 2.90 26	121 1.95 18	0.3	0.08	--	760 682	390	
32S/13E-31B 6 M 6- 5-65	--	7.6	1185	89 4.44 37	51 4.19 35	76 3.30 28	2 0.05	0	208 3.41 29	178 3.71 31	101 2.85 24	115 1.85 16	0.3	0.07	--	784 715	432	
32S/13E-31B 7 M 6- 5-65	--	7.4	1081	66 3.29 30	55 4.52 42	70 3.04 28	1 0.03	0	162 2.66 25	199 4.14 39	93 2.62 24	81 1.31 12	0.3	0.02	--	696 645	391	
32S/13E-31B 9 M 7-27-65	--	8.4	1162	96 4.79 39	50 4.11 33	76 3.30 27	3 0.08	17 0.57 5	195 3.20 26	184 3.83 31	99 2.79 23	113 1.82 15	0.3	0.10	--	817 734	445	
32S/13E-31B10 M 6- 5-65	--	7.5	1193	97 4.84 40	47 3.87 32	78 3.39 28	3 0.08	0	215 3.52 29	178 3.71 31	100 2.82 24	120 1.94 16	0.3	0.06	--	819 729	436	
32S/13E-31B12 M 6- 5-65	--	8.0	907	90 4.49 47	42 3.45 36	36 1.57 16	2 0.05	0	262 4.29 45	138 2.87 30	49 1.38 15	59 0.95 10	0.4	0.02	--	560 545	397	

TABLE E-1

ANALYSES OF GROUND WATER  
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million reagent value					Mineral constituents in parts per million				
				Calcium Mg	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	I.D.S. Evap 180°C Evap 105°C Computed	Total hardness Calc	
SAN LUIS OBISPO HYDRO UNIT																		
ARROYO GRANDE HYDRO SUBUNIT				T1000					T1000									
ARROYO GRANDE HYDRO SUBAREA				T1001					T1001									
32S/13E-31B13 M 7-27-65	--	8.2	1140	105 5.24 43	52 4.28 35	60 2.61 21	3 0.08 1	0	253 4.15 34	183 3.81 31	96 2.71 22	90 1.45 12	0.3	0.08	--	790 714	476	
32S/13E-31C 1 M 4-14-65	--	7.5	4255	82 4.09 10	98 8.06 19	670 29.13 69	40 1.02 2	0	520 8.52 20	336 7.00 16	960 27.07 64	1 0.02	0.9	0.45	--	2509 2444	608	
32S/13E-31F 1 M 7-27-65	--	8.1	1163	131 6.54 47	64 5.26 38	46 2.00 14	3 0.08 1	0	454 7.44 54	242 5.04 37	42 1.18 9	0.0	0.4	0.05	--	820 752	590	
32S/13E-31F 2 S 5-12-65	--	8.1	1370	128 6.39 41	73 6.00 39	67 2.91 19	4 0.10 1	0	354 5.80 37	394 8.20 53	52 1.47 10	0	0.1	0.11	--	1006 892	620	
32S/13E-31F 3 S 5-14-65	--	8.0	1370	133 6.64 40	78 6.41 38	82 3.57 21	4 0.10 1	0	234 3.84 23	545 11.35 68	57 1.61 10	0	0.1	0.12	--	1160 1014	653	
32S/13E-31F 4 S 5-12-65	--	7.7	1000	58 2.89 26	47 3.87 35	94 4.09 37	3 0.08 1	0	329 5.39 49	144 3.00 28	89 2.51 23	0.0	0.1	0.15	--	628 597	338	
32S/13E-31H 1 M 7-27-65	69	8.5	1686	198 9.88 48	99 8.14 39	62 2.70 13	2 0.05	34 1.13 6	348 5.70 28	460 9.58 47	93 2.62 13	85 1.37 7	0.6	0.02	--	1375 1205	902	
32S/13E-31H 2 M 7-27-65	68	8.0	1466	131 6.54 39	91 7.48 45	60 2.61 16	1 0.03	0	259 4.25 26	402 8.37 51	82 2.31 14	99 1.60 10	0.4	0.06	--	1135 994	702	

TABLE E-1  
ANALYSES OF GROUND WATER  
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reactance value				Mineral constituents in parts per million					
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlor- ide Cl	Ni- trate NO <sub>3</sub>	Fluor- ide F	Bor- on B	Sili- ca SiO <sub>2</sub>	IDS Ex- posed to air Days Computed Days	
ARROYO GRANDE HYDRO SUBUNIT				SAN LUIS OBISPO HYDRO UNIT													
ARROYO GRANDE SUBAREA				T1000													
T10C0				T10C1													
32S/13E-31J 2 M 7-27-65	--	8.3	1359	156 7.78 48	75 6.17 38	51 2.22 14	2 0.05	12 0.40 3	408 6.69 42	301 6.27 39	59 1.66 10	58 0.94 6	0.5	0.04	--	1070 915	698
32S/13E-32D 1 M 7-28-65	70	7.9	885	83 4.14 46	38 3.13 35	39 1.70 19	2 0.05	0	199 3.26 36	131 2.73 30	59 1.66 18	89 1.44 16	0.3	0.04	--	528 539	364
32S/13E-32D 3 M 7-28-65	--	8.1	866	83 4.14 47	38 3.13 35	35 1.52 17	2 0.05	0	198 3.25 37	130 2.71 30	53 1.49 17	89 1.44 16	0.3	0.06	--	561 528	364
NIPOMO MESA HYDRO SUBAREA				T10C2													
11N/35W-5L 1 S 10-15-64	69	7.8	711	60 2.99 40	28 2.30 31	47 2.04 28	3 0.08	0	157 2.57 34	158 3.29 44	53 1.49 20	6.7 0.11 1	0.2	0.03	--	485 433	265
11N/35W-9P 1 S 10-15-64	--	7.2	289	12 0.60 23	6 0.49 19	33 1.43 56	2 0.05	0	48 0.79 30	8 0.17 6	53 1.49 56	12 0.19 7	0	0	--	207 150	55

**TABLE E-1**  
ANALYSES OF GROUND WATER  
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						parts per million equivalents per percent						Mineral constituents in parts per million					
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	SiO <sub>2</sub>	I.D.S. Evap 180°C Evap 105°C Computed	Hardness as CaCO <sub>3</sub>				
CARRIZO PLAIN HYDRO UNIT																					
T1100																					
11N/26W- 2G 1 S 10- 5-64	--	7.8	2750	88 4.39 13	29 2.38 7	630 27.39 80	0.15	6	0	239 3.92 12	835 17.38 51	433 12.21 36	23 0.37 1	0.6	1.62	--	2094 2164	339			
29S/17E-13R 1 M 10- 5-64	--	7.8	800	44 2.20 25	8 0.66 8	135 5.87 67	0.05	2	0	176 2.88 33	122 2.54 29	81 2.28 26	63 1.02 12	0.6	0.53	--	580 543	143			
30S/18E- 1L 1 M 10- 7-64	--	7.8	3030	227 11.33 33	70 5.76 17	390 16.96 50	0.03	1	0	212 3.47 10	835 17.38 50	385 10.86 32	169 2.73 8	0.7	1.16	43	2200 2226	855			
30S/18E- 2N 1 M 10- 7-64	--	7.8	765	62 3.09 41	20 1.64 22	63 2.74 37	0.03	1	0	202 3.31 45	117 2.44 33	36 1.02 14	40 0.65 9	0.4	0.24	38	440 477	237			
30S/18E-12N 1 M 10- 7-64	--	8.0	640	41 2.05 31	17 1.40 21	73 3.17 48	0.03	1	0	229 3.75 57	63 1.31 20	31 0.87 13	38 0.61 9	0.2	0.27	--	418 377	173			
30S/18E-13M 1 M 10- 7-64	--	8.2	816	30 1.50 18	17 1.40 17	126 5.48 65	2	0	0	254 4.16 50	135 2.81 34	39 1.10 13	15 0.24 3	0.8	0.42	25	508 515	145			
30S/18E-23D 1 M 10- 7-64	--	8.1	978	90 4.49 43	41 3.37 32	60 2.61 25	0.08	3	0	217 3.56 34	188 3.91 37	58 1.64 16	86 1.39 13	0.5	0.10	16	640 649	393			
30S/19E- 8E 1 M 10- 7-64	--	7.2	8592	350 17.47 16	231 19.00 18	1630 70.87 66	4	0	0	165 2.70 3	3272 68.12 65	1180 33.28 32	92 1.48 1	0.5	3.25	--	7134 6844	1825			



TABLE E-1  
ANALYSES OF GROUND WATER  
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlor- ide Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Baron Ba	Sili- ca SiO <sub>2</sub>	I.D.S. Evap Residue Excess CaO Percent CaO <sub>3</sub>		
CARRIZO PLAIN HYDRO UNIT T1100																		
30S/19E-19P 1 M 10- 7-64	--	8.0	970	47 2.35 22	36 2.96 27	127 5.52 51	0	--	215 3.52 33	231 4.81 45	60 1.69 16	41 0.66 6	1.0	0.47	--	644 649		266
30S/19E-23J 1 M 10- 7-64	--	7.7	5400	607 30.29 41	175 14.39 19	665 28.91 39	9 0.23	0	162 2.66 4	2654 55.26 76	465 13.11 18	90 1.45 2	0.6	2.80	--	5562 4748		2236
30S/19E-23M 1 M 10- 8-64	--	8.0	11507	500 24.95 16	462 37.99 24	2250 97.83 61	5 0.13	0	184 3.02 2	5264 109.60 69	1525 43.01 27	175 2.82 2	0.6	6.30	39	10460 10317		3150
30S/19E-29K 1 M 10- 7-64	--	8.1	1537	77 3.84 23	56 4.61 27	196 8.52 50	2 0.05	0	253 4.15 25	488 10.16 61	65 1.83 11	32 0.52 3	0.6	1.14	--	1110 1042		423
30S/19E-29N 1 M 10- 7-64	--	8.3	1030	69 3.44 30	48 3.95 34	94 4.09 35	2 0.05	10 0.33 3	199 3.26 29	280 5.83 51	52 1.47 13	30 0.48 4	1.0	0.38	24	680 706		370
30S/19E-29Q 1 M 10- 5-64	--	7.9	6400	102 5.09 6	57 4.69 6	1670 72.61 88	10 0.26	0	306 5.02 6	2661 55.40 68	748 21.09 26	0.0	2.6	16.50	--	5388 5418		489
30S/19E-30G 1 M 10- 7-64	--	8.0	1054	80 3.99 33	63 5.18 43	63 2.74 23	4 0.10 1	0	300 4.92 41	301 6.27 52	31 0.87 7	2 0.03	0.9	0.15	15	710 708		459
30S/19E-32G 1 M 10- 5-64	--	7.9	1260	89 4.44 31	73 6.00 43	83 3.61 26	2 0.05	0	378 6.20 45	284 5.91 43	51 1.44 10	20 0.32 2	0.6	0.56	--	912 789		522

TABLE E-1  
ANALYSES OF GROUND WATER  
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million							
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fuo- ride F	Bor- on B	SiO <sub>2</sub>	IO <sub>3</sub> Evap Resid Extr (50°C)	Total hardness as CaCO <sub>3</sub>
CARRIZO PLAIN HYDRO UNIT T1100																	
30S/20E-18C 1 M 10- 7-64	--	7.9	3100	224 11.18 25	124 10.20 23	520 22.61 51	8 0.20	0	304 4.98 11	1039 21.63 50	596 16.81 39	0.0	0.6	3.60	--	2978 2665	1070
30S/20E-30K 1 M 10- 5-64	--	8.0	4219	560 27.94 46	213 17.52 29	352 15.30 25	5 0.13	0	160 2.62 4	2344 48.80 82	250 7.05 12	83 1.34 2	0.9	2.35	40	4110 3929	2275



TABLE E-1

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**TABLE E-1**  
ANALYSES OF GROUND WATER  
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				Mineral constituents in parts per million					
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	I.O.S. Evap 180°C as Computed	Total hardness as CaCO <sub>3</sub>
SANTA MARIA HYDRO SUBUNIT																	
T12A0																	
SANTA MARIA--CUYAMA HYDRO UNIT																	
T1200																	
10N/34W-3P 2 S 10- 6-64	--	8.1	1250	126 6.29 44	60 4.93 34	72 3.13 22	3 0.08 1	0	276 4.52 31	405 8.43 58	46 1.30 9	17 0.27 2	0.3	0.20	--	890 865 561	
7- 8-65	--	7.7	1290	137 6.84 47	59 4.85 33	66 2.87 20	3 0.08 1	0	267 4.38 30	396 8.24 57	50 1.41 10	22 0.35 2	0.6	0.22	--	911 865 585	
10N/34W-14E 5 S 10- 6-64	--	7.7	1650	175 8.73 41	100 8.22 39	95 4.13 19	4 0.10 1	0	292 4.79 23	596 12.41 59	81 2.28 11	89 1.44 7	0.4	0.24	--	1306 1284 848	
10N/34W-17F 1 S 7- 8-65	--	7.9	1823	185 9.23 42	92 7.57 35	111 4.83 22	4 0.10 1	0	238 3.90 18	696 14.49 68	79 2.23 10	40 0.65 3	0.8	0.26	--	1436 1325 841	
10N/34W-18D 1 S 7- 8-65	--	7.2	2280	216 10.78 41	91 7.48 28	189 8.22 31	5 0.13 1	0	428 7.01 27	539 11.22 43	231 6.51 25	66 1.06 4	0.7	0.34	--	1642 1548 914	
10N/34W-21R 1 S 10- 6-64	--	8.2	1253	122 6.09 42	62 5.10 36	71 3.09 22	3 0.08 1	0	254 4.16 30	370 7.70 55	68 1.92 14	18 0.29 2	0.7	0.20	30	990 870 560	
10N/34W-26H 2 S 10- 6-64	--	8.2	1311	113 5.64 39	62 5.10 35	84 3.65 25	3 0.08 1	0	228 3.74 26	329 6.85 48	118 3.33 23	23 0.37 3	0.5	0.21	32	1005 877 537	
10N/34W-29N 1 S 6- 3-65	--	8.0	1750	190 9.48 43	96 7.90 36	105 4.57 21	4 0.10 1	0	326 5.34 24	670 13.95 62	71 2.00 9	70 1.13 5	0.4	0.23	--	1506 1367 870	

TABLE E-1

ANALYSES OF GROUND WATER  
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent					Mineral constituents in parts per million				
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Flu- oride F	Boron B	Sul- fur S	Iron Fe	Hardness Equiv 100°C Equiv 105°C Computed	
Date sampled																		
SANTA MARIA HYDRO SUBUNIT																		
T12AO																		
SANTA MARIA-CUYAMA HYDRO UNIT																		
T1200																		
10N/34W-21N 1 S 6- 2-65	--	7.7	900	92 4.59 43	43 3.54 33	58 2.52 23	3 0.08 1	0	288 4.72 44	219 4.56 42	53 1.49 14	4 0.06 1	0.1	0.28	--	668 614		
10N/34W-34E 2 S 6- 3-65	--	8.2	900	80 3.99 38	51 4.19 40	52 2.26 21	3 0.08 1	0	244 4.00 38	265 5.52 52	38 1.07 10	4 0.06 1	0.2	0.24	--	618 613		
10N/35W-4C 1 S 7- 9-65	--	7.9	1887	221 11.03 47	97 7.98 34	99 4.30 18	4 0.10 1	0	349 5.72 25	721 15.01 65	74 2.09 9	19 0.31 1	0.6	0.21	--	1581 1407		
10N/35W-7F 1 S 7- 9-65	64	7.6	2100	250 12.48 48	111 9.13 35	98 4.26 16	4 0.10 1	0	311 5.10 20	795 16.55 65	131 3.69 15	5 0.08 1	0.6	0.17	--	1734 1548		
10N/35W-9N 1 S 10- 7-64	62	8.0	2066	222 11.08 42	99 8.06 31	162 7.04 27	4 0.10 1	0	310 5.08 20	845 17.59 68	101 2.85 11	10 0.16 1	0.8	0.34	35	1730 1631		
7- 9-65	63	7.3	2431	257 12.82 42	114 9.38 31	189 8.22 27	4 0.10 1	0	342 5.61 19	981 20.42 69	126 3.55 12	6 0.10 1	0.7	0.35	--	1081 1846		
10N/35W-14D 1 S 10- 7-64	63	8.1	1563	154 7.68 42	72 5.92 32	105 4.57 25	4 0.10 1	0	259 4.25 24	516 10.78 60	85 2.40 13	37 0.60 3	0.7	0.22	31	1195 1134		
7- 9-65	64	7.6	1026	160 8.28 44	74 6.09 32	100 4.35 23	4 0.10 1	0	298 4.88 26	515 10.72 57	89 2.51 13	30 0.61 3	0.7	0.21	--	1264 1133		

TABLE E-1  
ANALYSES OF GROUND WATER  
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent					Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Barium Ba	Silica SiO <sub>2</sub>	Total hardness as CaCO <sub>3</sub> Computed		
SANTA MARIA HYDRO SUBUNIT				SANTA MARIA-CUYAMA HYDRO UNIT										T1200				
T12A0																		
10N/35W-17D 1 S 10- 7-64	62	8.0	2268	240 11.98 42	110 9.05 32	170 7.39 26	0.10	4	0	354 5.80 21	872 18.16 64	139 3.92 14	23 0.37 1	0.7	0.28	34	1860 1767	
10N/36W-1H 1 S 4- 8-65	61	7.3	1760	183 9.13 45	84 6.91 34	98 4.26 21	0.15	6	0	256 4.20 21	619 12.89 63	112 3.16 15	12 0.19 1	0.8	0.10	--	1340 1241	
10N/36W-2G 1 S 4- 8-65	63	7.3	1389	134 6.69 42	63 5.18 33	89 3.87 24	0.10	4	0	246 4.03 25	471 9.81 62	68 1.92 12	5 0.08 1	0.8	0.24	--	1030 956	
10N/36W-2G 2 S 4- 8-65	63	7.4	1495	123 6.14 40	46 3.78 24	125 5.44 35	0.13	5	0	354 5.80 37	180 3.75 24	201 5.67 37	16 0.26 2	0.7	0.34	--	930 871	
10N/36W-12R 1 S 7- 9-65	65	8.0	1199	119 5.94 44	57 4.69 35	62 2.70 20	0.05	2	0	244 4.00 30	335 6.97 53	75 2.12 16	9 0.15 1	0.5	0.11	--	895 780	
11N/34W-29P 2 S 10- 6-64	64	7.4	1149	115 5.74 46	48 3.95 31	65 2.83 22	0.08	3	0	211 3.46 28	295 6.14 49	66 1.86 15	66 1.06 8	0.6	0.12	36	907 798	
7- 9-65	--	7.4	1099	102 5.09 43	47 3.87 33	65 2.83 24	0.05	2	0	224 3.67 31	258 5.37 46	66 1.86 16	49 0.79 7	0.6	0.08	--	772 700	
11N/35W-18M 1 S 10- 6-64	--	8.3	1380	148 7.39 46	64 5.26 32	80 3.48 21	0.10	4	13 0.43 3	209 3.43 21	516 10.74 67	48 1.35 8	1 0.02 0	0.6	0.17	37	1110 1014	



TABLE E-1  
ANALYSES OF GROUND WATER  
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million							Mineral constituents in parts per million						
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	TDS Evap 180°C Evap 105°C as Computed	Hardness as CaCO <sub>3</sub>
Date sampled				Co	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>		
SANTA MARIA HYDRO SUBUNIT				SANTA MARIA-CUYAMA HYDRO UNIT													
				T12A0							T1200						
11N/35W-19E 2 S 7- 9-65	--	7.5	1322	133 6.64 44	58 4.77 31	85 3.70 24	4 0.10 1	0	262 4.29 29	433 9.02 61	52 1.47 10	1.0 0.02	0.5	0.16	--	1000	571
11N/35W-26M 1 S 7- 9-65	--	7.5	793	68 3.39 42	31 2.55 31	50 2.17 27	2 0.05 1	0	149 2.44 30	193 4.02 50	51 1.44 18	9 0.15 2	0.4	0.07	--	895	297
11N/35W-28B 1 S 10- 6-64	64	8.0	943	98 4.89 46	38 3.13 30	57 2.48 23	3 0.08 1	0	199 3.26 31	290 6.04 57	42 1.18 11	10 0.16 2	0.6	0.14	35	670 672	401
11N/35W-28L 1 S 10- 6-64	61	7.9	1088	121 6.04 48	49 4.03 32	58 2.52 20	3 0.08 1	0	246 4.03 32	346 7.20 58	37 1.04 8	13 0.21 2	0.8	0.18	30	810	504
11N/35W-33F 1 S 7- 9-65	--	7.1	2009	234 11.68 47	103 8.47 34	103 4.48 18	4 0.10	0	492 8.06 33	637 13.26 54	102 2.88 12	8.5 0.14 1	0.6	0.24	--	1618 1434	1008
11N/36W-13R 1 S 10- 6-64	--	8.3	1200	141 7.04 47	54 4.44 30	78 3.39 23	4 0.10 1	18 0.60 4	231 3.79 25	452 9.41 63	41 1.16 8	2 0.03	0.5	0.16	39	1005	574
7- 9-65	--	7.5	1313	136 6.79 45	59 4.85 32	80 3.48 23	4 0.10 1	0	250 4.10 28	449 9.35 63	47 1.33 9	0.5 0.01	0.5	0.16	--	1018 899	582



TABLE E-1  
ANALYSES OF GROUND WATER  
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per percent			million reactance value			Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	I.D.S. Evap 180°C Evap 105°C Computed	Total hardness CaCO <sub>3</sub>		
SISQUOC HYDRO SUBUNIT																			
T1280																			
SANTA MARIA-CUYAMA HYDRO UNIT																			
T1200																			
9N/32W-17G 1 S 10- 6-64	--	7.9	1200	107 5.34 38	75 6.17 44	58 2.52 18	3 0.08 1	0	287 4.70 34	384 7.99 58	31 0.87 6	19 0.31 2	0.6	0.17	27	964 846	576		
9N/33W-12R 1 S 10- 6-64	--	7.8	910	99 4.94 41	56 4.61 38	57 2.48 21	2 0.05	0	257 4.21 71	33 0.69 12	29 0.82 14	14 0.23 4	0.2	0.22	--	890 417 478			
7- 8-65	--	8.1	1115	102 5.09 40	61 5.02 40	56 2.43 19	2 0.05	0	269 4.41 36	328 6.83 55	33 0.93 8	13 0.21 2	0.5	0.21	--	760 728 506			
10N/31W-18J 1 S 2-20-65	--	7.9	1170	119 5.94 39	79 6.50 43	62 2.70 18	1 0.03	0	469 7.69 50	301 6.27 41	46 1.30 9	0.0	0.2	0.20	--	918 839 622			

ANALYSES OF GROUND WATER  
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million				Mineral constituents in parts per million				
				Calcium Cc	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	TDS Exap-180°C Exap-105°C Computed
Date sampled																
CUYAMA VALLEY HYDRO SUBUNIT																
T12CO																
SANTA MARIA-CUYAMA HYDRO UNIT																
T1200																
7N/22W-2J 1 S 6-21-65	--	8.2	893	6 0.30 3	0	205 8.91 96	2 0.05 1	7 0.23 3	250 4.10 45	209 4.35 48	11 0.31 3	2.2 0.04	1.4	0.95	--	536 567
7N/23W-2Q 1 S 3-3-65	--	8.0	2000	259 12.92 47	113 9.29 34	5.30 19	4 0.10	0	240 3.93 14	1136 23.65 84	17 0.46 2	0.0	0.1	0.28	--	1922 1769
7N/23W-15R 1 S 3-1-65	--	8.0	2150	259 12.92 43	152 12.50 42	102 4.43 15	4 0.10	0	210 3.44 11	1284 26.73 88	9 0.25 1	0.0	1.2	0.22	--	2172 1915
7N/23W-16G 1 S 3-2-65	--	7.9	450	48 2.40 50	12 0.99 21	31 1.35 28	1 0.03	0	221 3.62 78	21 0.44 9	18 0.51 11	5 0.08 2	0.1	0.05	--	250 245
7N/23W-19H 1 S 3-1-65	--	7.8	1520	98 4.89 24	141 11.60 57	83 3.61 18	3 0.08	0	330 5.41 26	703 14.64 71	16 0.45 2	0.0	0.8	2.50	--	1420 1210
7N/23W-19K 1 S 3-2-65	--	7.7	3500	529 26.40 47	269 22.12 39	180 7.83 14	5 0.13	0	342 5.61 10	2321 48.32 87	64 1.80 3	1 0.02	1.2	0.57	--	4010 3539
7N/23W-22N 1 S 6-21-65	--	7.8	938	104 5.19 57	27 2.22 24	38 1.65 18	4 0.10 1	0	216 3.54 39	231 4.81 54	22 0.62 7	0.9 0.01	0.3	0	--	556 533
7N/24W-13C 2 S 9-28-65	60	7.5	2079	270 13.47 50	115 9.46 35	90 3.91 15	4 0.10	0	218 3.57 13	1096 22.82 85	14 0.39 1	0	1.2	0.30	--	1795 1698

TABLE E-1  
ANALYSES OF GROUND WATER  
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent reactance value				Mineral constituents in parts per million					
				Calcium C c	Magne- sium M g	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	TDS Evap 180°C as Computed Calc'd	
CUYAMA VALLEY HYDRO SUBUNIT				SANTA MARIA-CUYAMA HYDRO UNIT										T1200			
T12CQ																	
7N/24W-13C 3 S 3-25-65	--	7.6	1850	269 13.42 53	75 6.17 25	125 5.44 22	4 0.10	0	205 3.36 14	522 10.87 44	374 10.55 43	0	0.4	0.18	--	1718 1470	980
7N/24W-24A 1 S 3- 2-65	68	7.2	1800	218 10.88 44	122 10.03 41	85 3.70 15	4 0.10	0	142 2.33 9	1028 21.40 87	34 0.96 4	0.0	0.8	0.20	--	1834 1562 1046	
8N/24W- 6R 1 S 3- 2-65	66	7.8	1650	194 9.68 42	118 9.70 42	79 3.43 15	3 0.08	0	189 3.10 13	932 19.40 84	20 0.56 2	0.0	0.8	0.15	--	1636 1440	970
8N/24W- 8R 1 S 3- 2-65	--	8.0	860	63 3.14 30	17 1.40 14	131 5.70 55	3 0.08	0	356 5.83 56	147 3.06 29	55 1.55 15	0.0	0.6	0.48	--	582 592	227
8N/24W-21M 1 S 3- 2-65	--	8.1	1800	158 7.88 33	142 11.68 49	92 4.00 17	5 0.13	0	202 3.31 14	958 19.95 84	20 0.56 2	2 0.03	0.8	0.22	--	1736 1477	979
8N/24W-27Q 1 S 3- 2-65	--	7.5	2000	320 15.97 56	103 8.47 30	94 4.09 14	5 0.13	0	105 1.72 6	1235 25.71 90	41 1.16 4	0.0	1.0	2.50	--	2050 1853	1223
8N/24W-28L 1 S 3- 2-65	--	8.0	3200	381 19.01 39	238 19.57 41	220 9.57 20	5 0.13	0	303 4.97 10	1980 41.22 87	43 1.21 3	4 0.06	0.8	0.30	--	3630 3021	1931
9N/22W-15L 1 S 8-13-65	--	8.1	492	64 3.19 57	16 1.32 23	23 1.00 18	5 0.13 2	0	317 5.20 91	14 0.29 5	7 0.20 4	1 0.02	0.2	0.03	--	330 286	226

SANTA MARIA-CUYAMA HYDRO UNIT T1200

CUYAMA VALLEY HYDRO SUBUNIT

T12CQ

ANALYSES OF GROUND WATER  
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per percent			parts per million reactance value			Mineral constituents in parts per million		
				Calcium	Magne- sium	Sodium	Potas- sium	Carbon ate	Bicar- bonate	Sulfate	Chlo- ride	Ni- trate	Fer- rite	Silica	Evap- orated	Hardness	Notes
Date sampled				Ca	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	Fe	B	mg/l	ppm	
CUYAMA VALLEY HYDRO SUBUNIT																	
T12C0																	
SANTA MARIA-CUYAMA HYDRO UNIT																	
T1200																	
9N/24W-19F 1 S 4-27-65	--	7.9	1825	235 11.73 50	101 8.31 35	80 3.48 15	4 0.10	0	190 3.11 13	950 19.78 85	13 0.37 2	4 0.06	1.7	0.24	--	1560 1482	1003
9-28-65	--	7.4	1905	247 12.33 52	95 7.81 33	84 3.65 15	4 0.10	0	193 3.16 13	977 20.34 85	12 0.34 1	4 0.06	1.2	0.24	--	1610 1519	1008
9N/24W-32Q 2 S 3-28-65	66	7.8	1650	170 8.48 36	134 11.02 47	86 3.74 16	3 0.08	0	190 3.11 13	965 20.09 85	17 0.48 2	0.0	0.8	0.18	--	1646 1469	976
9N/25W-14R 2 S 4-27-65	--	7.6	1887	230 11.48 47	109 8.96 36	93 4.04 16	4 0.10	0	173 2.84 12	1012 21.07 87	13 0.37 2	3 0.05	0.9	0.16	--	1570 1550	1023
9-28-65	66	7.4	1942	259 12.92 51	102 8.39 33	95 4.13 16	4 0.10	0	239 3.92 15	1020 21.24 83	14 0.39 2	1 0.02	0.6	0.18	--	1710 1613	1066
10N/25W-20H 1 S 4-27-65	62	8.1	1773	221 11.03 50	97 7.98 36	72 3.13 14	4 0.10	0	149 2.44 11	916 19.07 87	14 0.39 2	4 0.06	1.3	0.10	--	1550 1403	951
9-28-65	62	7.7	1825	238 11.88 52	93 7.65 33	76 3.30 14	4 0.10	0	175 2.87 13	932 19.40 85	13 0.37 2	4 0.06	1.2	0.24	--	1535 1447	977
10N/25W-21G 1 S 4-27-65	62	7.9	2358	315 15.72 50	139 11.43 36	100 4.35 14	5 0.13	0	203 3.33 11	1285 26.75 86	21 0.59 2	35 0.56 2	1.5	0.24	--	2200 2002	1359

TABLE E-1  
ANALYSES OF GROUND WATER  
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent reactance value					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	TDS Evap 180°C Evap 105°C Computed CaCO <sub>3</sub>	Total Hardness as CaCO <sub>3</sub>	
CUYAMA VALLEY HYDRO SUBUNIT																		
T12C0																		
10N/25W-22E 1 S 4-27-65	63	7.8	2055	268 13.37 50	116 9.54 36	85 3.70 14	4 0.10	0	176 2.88 11	1087 22.63 86	18 0.51 2	24 0.39 1	1.3	0.22	--	1840 1690	1146	
9-28-65	63	7.4	2096	282 14.07 52	107 8.80 33	90 3.91 15	5 0.13	0	193 3.16 12	1092 22.74 85	18 0.51 2	20 0.32 1	1.2	0.24	--	1810 1710	1144	
10N/25W-23E 1 S 4-27-65	--	7.8	2200	226 11.28 43	87 7.15 27	175 7.61 29	6 0.15 1	0	139 2.28 9	944 19.65 74	158 4.46 17	5 0.08	1.3	1.40	--	1720 1672	922	
10N/25W-30F 2 S 4-27-65	64	8.1	1768	212 10.58 48	102 8.39 38	72 3.13 14	4 0.10	0	153 2.51 11	903 18.80 85	16 0.45 2	18 0.29 1	1.1	0.16	--	1558 1403	949	
9-28-65	63	7.5	1802	221 11.03 49	102 8.39 37	74 3.22 14	4 0.10	0	180 2.95 13	901 18.76 83	18 0.51 2	21 0.34 2	1.1	0.14	--	1526 1431	972	
10N/25W-32H 1 S 4-27-65	63	8.1	1785	218 10.88 49	102 8.39 37	70 3.04 14	4 0.10	0	167 2.74 12	875 18.22 82	20 0.56 3	39 0.63 3	1.3	0.16	--	1580 1412	964	
10N/26W-4R 1 S 4-27-65	--	8.1	1908	229 11.43 48	90 7.40 31	108 4.70 20	4 0.10	0	165 2.70 12	925 19.26 83	39 1.10 5	2.5 0.04	0.9	0.62	--	1545 1480	942	
9-28-65	--	7.6	1874	225 11.23 48	90 7.40 32	102 4.43 19	4 0.10	0	168 2.75 12	921 19.18 84	33 0.93 4	3 0.05	1.1	0.56	--	1562 1462	932	
SANTA MARIA-CUYAMA HYDRO UNIT																		
T1200																		



ANALYSES OF GROUND WATER  
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million reactance value				Mineral constituents in parts per million					
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Free oxide F	Borax B	Sul- fate SO <sub>4</sub>	I.D.S. Extr. 100°C Extr. 150°C Computed Co <sub>2</sub> 3	
CUYAMA VALLEY HYDRO SUBUNIT																	
T12C0																	
SANTA MARIA-CUYAMA HYDRO UNIT																	
T1200																	
10N/26W-9R 3 S 4-27-65	67	8.0	1989	259 12.92 53	91 7.48 31	92 4.00 16	4 0.10	0	151 2.47 10	1028 21.40 87	24 0.68 3	10 0.16 1	0.9	0.25	--	1646 1583	1061
9-28-65	66	7.4	1980	263 13.12 52	100 8.22 32	91 3.96 16	5 0.13 1	0	181 2.97 12	1034 21.53 85	20 0.56 2	10 0.16 1	1.1	0.18	--	1708 1613	1068
10N/26W-14CS1 S 4-27-65	74	8.0	1995	265 13.22 51	106 8.72 34	89 3.87 15	5 0.13 1	0	165 2.70 11	1049 21.84 87	21 0.59 2	2 0.03 1	1.1	0.26	--	1715 1619	1098
9-28-65	64	7.6	2033	263 13.12 50	110 9.05 34	91 3.96 15	6 0.15 1	0	189 3.10 12	1065 22.17 86	19 0.54 2	1 0.02 1	1.5	0.22	--	1782 1650	1109
10N/26W-14C 4 S 4-27-65	64	8.1	2072	286 14.27 53	111 9.13 34	83 3.61 13	4 0.10	0	179 2.93 11	1070 22.28 85	30 0.85 3	11 0.18 1	1.1	0.23	--	1738 1684	1171
9-28-65	63	7.3	2095	285 14.22 52	117 9.62 35	80 3.48 13	4 0.10	0	175 2.87 11	1108 23.07 85	30 0.85 3	16 0.26 1	1.3	0.16	--	1845 1727	1193
10N/26W-23P 1 S 4-27-65	69	7.9	2099	285 14.22 53	102 8.39 31	99 4.30 16	5 0.13	0	137 2.25 9	1089 22.67 86	41 1.16 4	10 0.16 1	0.7	0.23	--	1836 1699	1131
9-28-65	68	7.4	2082	281 14.02 52	106 8.72 33	91 3.96 15	5 0.13	0	155 2.54 10	1094 22.78 86	35 0.99 4	11 0.18 1	0.8	0.16	--	1835 1700	1138

TABLE E-1  
ANALYSES OF GROUND WATER  
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per percent			million reactance value			Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	I.D.S. Evap 180°C Evap 105°C as Computed	T ag. hardness as Ppm. 3		
				SANTA MARIA-CUYAMA HYDRO UNIT										T1200					
				T12C0															
10N/27W-11C 1 S 4-27-65	--	7.5	4941	541 27.00 37	317 26.07 36	458 19.91 27	7 0.18	0	442 7.24 10	2956 61.54 86	100 2.82 4	13 0.21	1.0	0.61	--	5088 4611	2656		
10N/28W-18R 1 S 2-25-65	--	8.0	900	78 3.89 33	71 5.84 50	45 1.96 17	2 0.05	0	318 5.21 44	299 6.23 52	17 0.48 4	0.0	0.2	0	--	754 669	487		

## ANALYSES OF GROUND WATER

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million				Mineral constituents in parts per million												
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Evap. residue at 180°C	Trace elements									
Date sampled																								
7N/32W-1B 1 S 7- 9-65	--	8.2	620	54 2.69 44	19 1.56 26	41 1.78 29	2 0.05 1	0	207 3.39 55	11 0.23 4	76 2.14 35	24 0.39 6	0.1	0.07	--	385	213							
8N/32W-30H 6 S 9-29-65	66	8.2	868	75 3.74 43	27 2.22 25	63 2.74 31	3 0.08 1	0	178 2.92 33	182 3.79 43	73 2.06 23	5 0.08 1	0.4	0.12	--	580	298							
8N/32W-30H 7 S 10- 7-64	--	7.4	580	46 2.30 38	18 1.48 25	50 2.17 36	3 0.08 1	0	137 2.25 38	88 1.83 31	67 1.89 32	0.0	0.2	0.02	--	410	189							
9-29-65	65	7.0	628	47 2.35 39	19 1.56 26	48 2.09 34	3 0.08 1	0	122 2.00 33	103 2.14 35	63 1.78 30	7 0.11 2	0.4	0.09	--	415	176							
8N/33W-20R 1 S 10- 7-64	--	8.0	1250	116 5.79 41	49 4.03 29	96 4.17 30	3 0.08 1	0	414 6.79 48	194 4.04 29	114 3.21 23	0.0	0.1	0.14	--	846	491							
7- 9-65	67	7.7	1315	126 6.29 42	51 4.19 28	99 4.30 29	2 0.05 1	0	439 7.20 49	190 3.96 27	128 3.61 24	0	0.3	0.18	--	888	524							
8N/34W-16G 1 S 10- 7-64	--	7.7	860	78 3.89 44	22 1.81 21	69 3.00 34	4 0.10 1	0	233 3.82 44	107 2.23 26	93 2.62 30	0.0	0.2	0.07	--	538	285							
8N/34W-16G 2 S 7- 9-65	72	7.8	809	73 3.64 46	14 1.15 14	72 3.13 39	2 0.05 1	0	209 3.43 43	77 1.60 20	105 2.96 37	0	0.8	0.07	--	486	240							

TABLE E-1

ANALYSES OF GROUND WATER  
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million						
				Calcium Mg	Magne- sium	Sodium Na	Potas- sium	Carbon- ate	Bicar- bonate	Sulfate SO <sub>4</sub>	Chlor- ide	Ni- trate	Fluo- ride	Boron B	Sili- ca	IDS Evap 180°C Evap 105°C Computed
Date sampled																
SAN ANTONIO HYDRO UNIT																
T1300																
8N/34W-23B 3 S 10- 7-64	--	7.8	1300	87 4.34 33	39 3.21 24	130 5.65 42	6 0.15 1	0	244 4.00 31	136 2.83 22	214 6.03 46	14 0.23 2	0.2	0.20	--	822 746
7- 9-65	65	7.5	1318	94 4.69 36	37 3.04 23	120 5.22 40	5 0.13 1	0	240 3.93 31	135 2.81 22	202 5.70 44	23 0.37 3	0.1	0.18	--	806 387
9N/35W-23R 1 S 11-30-64	65	7.5	5587	236 11.78 18	192 15.79 25	840 36.52 57	5 0.13	0	631 10.34 16	1022 21.28 33	1170 32.99 51	19 0.31	0.3	3.20	37	4070 1380
9N/35W-26C 1 S 11-30-64	--	7.5	1587	62 3.09 20	40 3.29 21	209 9.09 58	5 0.13 1	0	298 4.88 31	151 3.14 20	252 7.11 45	45 0.73 5	0.8	0.50	48	3835 950 319 960

ANALYSES OF GROUND WATER  
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent					Mineral constituents in parts per million				
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- co SiO <sub>2</sub>	TDS Expressed as CaCO <sub>3</sub>	Total hardness as CaCO <sub>3</sub>	
LOMPOC HYDRO SUBUNIT				SANTA YNEZ HYDRO UNIT										T1400				
T14AO																		
7N/33W-30B 1 S 7- 6-65	68	7.6	1418	52 2,559 21	38 3,13 25	152 6,61 53	5 0.13 1	0	54 0.89 7	25 0.52 4	384 10,83 86	25 0.40 3	0.5	0.08	--	930 708	286	
9-22-65	--	7.3	1477	57 2,84 22	36 2,96 23	160 6,96 54	5 0.13 1	0	60 0.98 8	30 0.62 5	388 10,94 84	28 0.45 3	0.3	0.13	--	1047 734	290	
7N/34W-19J 1 S 7- 7-65	71	7.7	1454	134 6,69 44	45 3,70 24	110 4,78 31	6 0.15 1	0	248 4,06 27	278 5,79 39	178 5,02 34	4.5 0.07	0.4	0.30	--	996 878	520	
7N/34W-19J 3 S 7- 7-65	69	7.4	1727	173 8,63 46	56 4,61 24	125 5,44 29	7 0.18 1	0	323 5,29 29	360 7,50 41	198 5,56 30	5 0.08	0.4	0.26	--	1279 1083	663	
7N/34W-19L 2 S 7- 7-65	69	7.9	1818	152 7,58 39	63 5,18 26	154 6,70 34	6 0.15 1	0	287 4,70 24	366 7,62 39	256 7,22 37	0.8 0.01	0.4	0.40	--	1299 1140	639	
7N/34W-20L 1 S 7- 7-65	71	7.8	1451	164 8,18 52	42 3,45 22	90 3,91 25	4 0.10 1	0	334 5,47 35	256 5,33 34	167 4,71 30	0	0.4	0.24	--	1090 888	582	
7N/34W-20M 2 S 7- 7-65	70	7.8	1441	115 5,74 39	38 3,13 21	130 5,65 38	7 0.18 1	0	259 4,25 29	191 3,98 27	230 6,49 44	9 0.15 1	0.5	0.36	--	930 848	444	
7N/34W-28G 1 S 7- 6-65	--	8.0	2122	158 7,88 31	117 9,62 38	184 8,00 31	5 0.13 1	0	321 5,26 21	707 14,72 60	167 4,71 19	0	0.6	0.93	--	1750 1497	876	



TABLE E-1

ANALYSES OF GROUND WATER  
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million								parts per million equivalents per million					Mineral constituents in parts per million				
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	I.D.S. Evap 180°C as Computed	Total hardness as CaCl <sub>2</sub>				
Date sampled				T14A0								T1400									
SANTA YNEZ HYDRO UNIT																					
LOMPOC HYDRO SUBUNIT																					
7N/34W-29K 2 S 7- 7-65	65	7.6	2519	252 12.57 40	153 12.58 40	140 6.09 19	6 0.15	0	471 7.72 25	855 17.80 57	204 5.75 18	3 0.05	0.9	0.60	--	1980 1846	1259				
9-22-65	65	8.1	2319	199 9.93 35	144 11.84 42	143 6.22 22	5 0.13	0	244 4.00 14	871 18.13 65	205 5.78 21	2 0.03	0.5	0.55	--	1895 1690	1089				
7N/34W-35H 1 S 8-15-65	64	8.1	3414	72 3.59 11	101 8.31 25	493 21.44 64	12 0.31 1	0	318 5.21 16	326 6.79 20	743 20.95 63	26 0.42 1	0.4	1.38	--	1994 1931	595				
7N/35W-17K 1 S 5- 0-65	--	7.7	8432	32 16.02 17	322 26.48 28	1150 50.00 54	21 0.54 1	0	472 7.74 8	846 17.61 19	2351 66.30 72	26 0.42	0.6	0.43	--	6206 5270	2127				
7N/35W-17M 1 S 4- 8-65	--	8.2	17857	80 3.99 2	479 39.39 21	3200 139.14 75	100 2.56 1	0	251 4.11 2	615 12.80 7	6015 169.62 91	16 0.26	0.6	1.60	--	11745 10631	2171				
7N/35W-18H 2 S 4- 8-65	64	7.1	31450	264 13.17 4	998 82.08 23	6150 267.40 73	61 1.56	0	264 4.33 1	1653 36.42 9	11550 325.71 89	10 0.16	1.2	2.30	--	21800 20819	4766				
7N/35W-18J 1 S 7- 7-65	--	8.0	5365	58 2.89 5	93 7.65 14	952 41.39 78	34 0.87 2	0	486 7.97 15	89 1.85 4	1518 42.81 81	10 0.16	0.5	1.08	--	3054 2994	527				
10- 1-65	--	7.8	5682	63 3.14 6	91 7.48 14	975 42.39 79	36 0.92 2	0	505 8.28 15	82 1.71 3	1560 43.99 81	8 0.13	0.5	1.06	--	3125 3065	531				

T1400

SANTA YNEZ HYDRO UNIT

T14A0

LOMPOC HYDRO SUBUNIT

ANALYSES OF GROUND WATER  
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in							parts per million equivalents per percent			Mineral constituents in parts per million				
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- co SiO <sub>2</sub>	TDS Evap. 200°C Nonacess Evap. 200°C Calcs		
LOMPOC HYDRO SUBUNIT				SANTA YNEZ HYDRO UNIT														
T14A0				T1400														
7N/35W-21L 4 S 7- 7-65	--	7.7	2700	151 7.53 26	106 8.72 30	295 12.83 44	7 0.18 1	0	412 6.75 23	407 8.47 29	495 13.96 48	5 0.08	0.6	0.34	--	813		
7N/35W-22M 1 S 7- 7-65	63	7.7	1764	127 6.34 36	47 3.87 22	164 7.13 41	6 0.15 1	0	268 4.39 25	156 3.25 19	348 9.81 56	1 0.02	0.3	0.14	--	511		
7N/35W-23E 2 S 7- 7-65	62	7.7	2413	172 8.58 33	101 8.31 32	210 9.13 35	7 0.18 1	0	488 8.00 30	456 9.49 36	315 8.88 34	4 0.06	0.6	0.58	--	845		
7N/35W-24E 2 S 9-22-65	--	7.8	2500	165 8.23 30	108 8.88 32	230 10.00 37	10 0.26 1	0	378 6.20 23	574 11.95 44	320 9.02 33	18 0.29	0.4	0.63	--	856		
7N/35W-24K 2 S 7- 7-65	66	7.6	2732	179 8.93 31	95 7.81 27	280 12.17 42	12 0.31 1	0	339 5.56 19	428 8.91 31	510 14.38 49	15 0.24	0.5	0.72	--	838		
9-22-65	65	8.0	2549	151 7.53 29	88 7.24 28	258 11.22 43	8 0.20 1	0	261 4.28 16	445 9.26 35	455 12.83 48	12 0.19	0.3	0.63	--	739		
7N/35W-25D 1 S 7- 6-65	63	7.6	2667	219 10.93 34	159 13.08 40	190 8.26 25	10 0.26 1	0	346 5.67 18	880 18.32 57	290 8.18 25	9 0.15	0.7	0.70	--	1201		
9-22-65	64	8.1	2718	177 8.83 30	149 12.25 41	193 8.39 28	8 0.20 1	0	208 3.41 12	863 17.97 61	280 7.90 27	7 0.11	0.5	0.73	--	1055		
9-22-65																1780		

TABLE E-1  
ANALYSES OF GROUND WATER  
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent reactance value					Mineral constituents in parts per million				
				Ca cium	Magne- sium	Sodium	Potas- sium	Carbon- ate	Bicar- bonate	Sulfate	Chlor- ide	Ni- trate	Fluor- ide	Boron	Silica SiO <sub>2</sub>	IDS Evap 105°C Evap 105°C Computed	Total hardness as CaCO <sub>3</sub>	
Date sampled				Ca	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>	Computed	CaCO <sub>3</sub>	
LOMPOC HYDRO SUBUNIT				T14A0														
SANTA YNEZ HYDRO UNIT				T1400														
7N/35W-33J 3 S 7- 7-65	67	7.9	1232	109 5.44 43	44 3.62 29	78 3.39 27	5 0.13 1	0	205 3.36 27	142 2.96 24	220 6.20 49	3 0.05	0.4	0.06	--	850 702	453	

ANALYSES OF GROUND WATER  
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million						
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	Total hardness as CaCO <sub>3</sub>
Date sampled				Ca	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>	Computed
SANTA RITA HYDRO SUBUNIT				T1480												
SANTA YNEZ HYDRO UNIT				T1400												
6N/32W-18H 1 S 7- 6-65	64	7.8	2765	213 10.63	184 15.13	181 7.87	4 0.10	0	309 5.06	1003 20.88	264 7.44	24 0.39	1.3	0.76	--	2325 1289
				32	45	23			15	62	22	1				2027
9-22-65	--	7.5	3100	328 16.37	168 13.82	193 8.39	3 0.08	0	657 10.77	994 20.70	268 7.56	22 0.35	1.6	0.80	--	2498 1511
				42	36	22			27	53	19	1				2301

TABLE E-1  
ANALYSES OF GROUND WATER  
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent reactance value					Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	TDS Evap 180°C Evap 105°C Computed Calc	Total hardness as CaCl <sub>2</sub>		
BUELLTON HYDRO SUBUNIT				SANTA YNEZ HYDRO UNIT														T1400	
T14C0				T1400															
6N/31W-17L 1 S 7- 9-65	65	7.8	1323	119 5.94 38	83 6.83 43	66 2.87 18	3 0.08 1	0	442 7.24 46	316 6.58 42	62 1.75 11	14 0.23 1	0.7	0.38	--	950 881	639		



TABLE E-1  
ANALYSES OF GROUND WATER  
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent				Mineral constituents in parts per million					
				Calcium	Magnet-ium	Sodium	Potas-sium	Carbon-ate	Bicar-bonate	Sulfate	Chlor-ide	Ni-trate	Fluor-ide	Bar-ium	Sel-eni-um	TDS, Evap 180°C Evap 105°C as computed	Total hardness as computed
Date sampled				Ca	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	Se	mg/l	mg/l
SANTA YNEZ HYDRO SUBUNIT				T1400													
SANTA YNEZ HYDRO UNIT				T1400													
6N/29W- 7L 2 S 10-19-64	--	8.1	500	44 2.20 36	36 2.96 48	22 0.96 16	0.05 1	2	0	310 5.08 83	7 0.15 2	29 0.82 13	0.06 1	0.4	0.05	--	346 297
6N/29W-17A 1 S 10-19-64	--	8.0	680	65 3.24 44	39 3.21 44	19 0.83 11	1 0.03	1	0	376 6.16 86	3 0.06 1	29 0.82 11	8 0.13 2	0.2	0.02	--	410 323
6N/30W- 2N 1 S 10-13-64	--	8.3	876	44 2.20 23	36 2.96 31	96 4.17 44	4 0.10 1	4	15 0.50 5	395 6.47 69	42 0.87 9	51 1.44 15	3 0.05 1	0.2	0.18	54	530 258
7- 9-65	82	8.2	774	22 1.10 13	41 3.37 39	92 4.00 47	3 0.08 1	3	0	383 6.28 73	41 0.85 10	51 1.44 17	4 0.06 1	0.4	0.20	--	480 224
6N/30W- 7C 4 S 10-13-64	--	8.0	560	34 1.70 25	49 4.03 59	25 1.09 16	1 0.03	1	0	276 4.52 67	16 0.33 5	84 1.80 27	8 0.13 2	0.1	0.09	--	386 333
7- 9-65	68	7.9	637	24 1.20 17	56 4.61 67	23 1.00 15	2 0.05 1	2	0	283 4.64 68	12 0.25 4	62 1.75 26	11 0.18 3	0.3	0.06	--	410 291
6N/30W-24H 1 S 10-13-64	--	8.0	960	100 4.99 45	48 3.95 35	50 2.17 19	3 0.08 1	3	0	295 4.84 44	269 5.60 50	24 0.68 6	0.0 0	0.3	0.33	--	768 447
7N/29W-15L 1 S 6-21-65	--	7.9	485	16 0.80 14	55 4.52 81	5 0.22 4	2 0.05 1	2	0	315 5.16 93	0 0 0	13 0.37 7	2.2 0.04 1	0	0	--	288 248

TABLE E-1  
ANALYSES OF GROUND WATER  
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per milliequivalent					Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	Iron	Total hardness at 105°C	Total hardness at 180°C
Date sampled				Co	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>	Fe	as	as
SANTA YNEZ HYDRO SUBUNIT																		
T14D0																		
7N/29W-29R 2 S 10-19-64	--	7.9	750	59 2.94 28	73 6.00 58	33 1.43 14	0.03	1	0	496 8.13 78	59 1.23 12	33 0.93 9	5 0.08 1	0.2	--	--	542 507	447
7N/30W-24Q 1 S 10-19-64	--	7.8	1210	59 2.94 22	90 7.40 54	74 3.22 24	0.08	3	0	653 10.70 79	30 0.62 5	73 2.06 15	14 0.23 2	0.1	--	--	698 664	517
7N/30W-33M 1 S 7-9-65	--	8.0	727	25 1.25 15	74 6.09 73	23 1.00 12	0.05	2	0	420 6.88 83	15 0.31 4	33 0.93 11	10 0.16 2	0.4	--	--	450 389	367
7N/31W-23N 5 S 7-9-65	64	8.2	894	75 3.74 36	62 5.10 49	36 1.57 15	0.05	2	0	378 6.20 59	158 3.29 31	29 0.82 8	15 0.24 2	0.7	--	--	610 564	442
8N/29W-34K 1 S 6-21-65	--	8.8	1450	184 9.18 59	60 4.93 32	29 1.26 8	0.08	3	40	636 10.42 67	150 3.12 20	19 0.54 3	2.4 0.04	0	--	--	824 800	706
8N/30W-29Q 1 S 10-19-64	--	7.8	680	20 1.00 11	94 7.73 84	10 0.43 5	0.03	1	0	493 8.08 89	15 0.31 3	20 0.56 6	7 0.11 1	0.1	--	--	464 410	437
8N/30W-35G 1 S 2-28-65	--	7.4	540	53 2.64 42	27 2.22 35	28 1.22 19	0.18	7	0	125 2.05 32	174 3.62 57	24 0.68 11	0.0	0.4	--	--	436 375	243

ANALYSES OF GROUND WATER  
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million reactance value					Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Barium Ba	Silica SiO <sub>2</sub>	TDS Evap. Residue Evap. 105°C 24 Computed Sol. 3		
HEADWATER HYDRO SUBUNIT				SANTA YNEZ HYDRO UNIT										T1400				
T14E0				T1400										T1400				
5N/25W-14M 1 S 6-21-65	--	8.1	1350	175 8.73 62	23 1.89 13	80 3.48 25	3 0.08 1	5 0.17 1	334 5.47 38	401 8.35 58	9 0.25 2	2.2 0.04	0.4	0.84	--	800 864	531	
6N/29W-9J 1 S 10-19-64	--	7.6	810	50 2.50 24	63 5.18 50	60 2.61 25	3 0.08 1	0 6.28 61	383 6.28 61	79 1.64 16	82 2.31 22	6 0.10 1	0.2	0.13	--	628 532	384	
7N/29W-10P 1 S 6-21-65	--	8.1	2018	152 7.58 39	55 4.52 23	168 7.30 37	5 0.13 1	0 11.80 60	720 11.80 60	308 6.41 33	48 1.35 7	2.2 0.04	1.3	0.10	--	1100 1094	609	

**TABLE E-1**  
ANALYSES OF GROUND WATER  
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Bore- B	Sili- co SiO <sub>2</sub>	I.O.S. Extr 180°C Extr 105°C Computed	Vita hardness as CaCl <sub>2</sub>	
ARGUELLO HYDRO SUBUNIT				SANTA BARBARA HYDRO UNIT														
T15A0				T1500														
4N/30W-1B 1 S 9-29-65	70	7.5	1488	235 11.73 70	15 1.23 7	88 3.83 23	3 0.08	0	236 3.87 23	544 11.33 67	57 1.61 10	1 0.02	1.3	0.23	--	1135 1061	649	
5N/30W-30N 1 S 6- 9-65	--	8.2	875	84 4.19 44	30 2.47 26	66 2.87 30	2 0.05 1	0	301 4.93 52	170 3.54 37	39 1.10 11	0	0.5	0.08	--	567 540	333	
5N/30W-31N 1 S 6- 9-65	--	7.5	2289	239 11.93 44	91 7.48 27	178 7.74 28	4 0.10	0	441 7.23 27	669 13.93 52	201 5.67 21	0	0.8	0.49	--	1737 1600	971	
5N/30W-31N 2 S 6- 9-65	--	7.9	2002	196 9.78 42	81 6.66 29	152 6.61 29	4 0.10	0	368 6.03 26	625 13.01 56	148 4.17 18	0.6 0.01	0.7	0.38	--	1543 1389	823	
5N/32W-34K 1 S 8- 5-65	--	7.8	2927	76 3.79 14	17 1.40 5	500 21.74 80	5 0.13	0	205 3.36 12	92 1.92 7	780 22.00 81	1 0.02	1.8	7.70	--	1605 1581	260	
5N/34W-32A 1 S 8- 3-65	--	7.4	639	68 3.39 52	18 1.48 23	38 1.65 25	1 0.03	0	207 3.39 52	83 1.73 26	50 1.41 22	0	0.4	0.01	--	400 360	244	

TABLE E-1  
ANALYSES OF GROUND WATER  
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				Mineral constituents in parts per million							
				Calcium Mg	Magne- sium	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	Total Hardness as CaCO <sub>3</sub>			
				SANTA BARBARA HYDRO UNIT															
				T15CO				T1500											
				T15C1															
4N/28W- 30 9 S 7- 9-65	65	7.2	1078	124 6.19 51	38 3.13 26	63 2.74 23	0.03	1	0	332 5.44 45	244 5.08 42	52 1.47 12	3 0.05	0.6	0.02	--	762 689		466
9-21-65	66	8.0	1093	121 6.04 51	36 2.96 25	65 2.83 24	0.03	1	0	309 5.06 43	244 5.08 43	58 1.64 14	2 0.03	0.5	0.06	--	738 679		450
4N/28W- 8N 3 S 10-12-64	--	8.2	1492	138 6.89 41	48 3.95 23	138 6.00 35	0.08	3	0	444 7.28 43	290 6.04 35	127 3.58 21	10 0.16 1	0.4	0.23	--	1027 973		542
7- 9-65	--	7.7	1071	58 2.89 26	29 2.38 21	132 5.74 52	0.08	3	0	288 4.72 42	158 3.29 29	110 3.10 28	5 0.08 1	0.3	0.24	--	640 637		264
9-21-65	--	8.2	1586	133 6.64 38	40 3.29 19	168 7.30 42	0.08	3	0	436 7.15 41	308 6.41 37	133 3.75 22	7.5 0.12 1	0.5	0.36	--	1053 1008		497
4N/28W-12K 2 S 1-26-64	--	7.7	1479	138 6.89 48	42 3.45 24	88 3.83 27	0.05	2	0	346 5.67 40	321 6.68 47	62 1.75 12	3 0.05	0.6	0.14	33	905 860		517
6-14-65	--	7.8	1129	96 4.79 38	47 3.87 31	90 3.91 31	0.05	2	0	220 3.61 28	339 7.06 55	72 2.03 16	4 0.06	0.7	0.18	--	760 759		433
9-21-65	70	7.8	1217	113 5.64 43	42 3.45 27	88 3.83 30	0.05	2	0	262 4.29 33	319 6.64 51	75 2.12 16	1.0 0.02	0.5	0.15	--	850 769		455



**TABLE E-1**  
ANALYSES OF GROUND WATER  
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per percent					Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	Iron	Hardness as CaCO <sub>3</sub>	
Date sampled				Co	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>	Fe	Compd	
SOUTH COAST HYDRO SUBUNIT																		
GOLETA HYDRO SUBAREA																		
T15CO				SANTA BARBARA HYDRO UNIT														
T15C1				T1500														
4N/28W-16J 1 S 7- 9-65	68	7.7	850	78 3.89 43	30 2.47 27	62 2.70 30	2 0.05 1	0	225 3.69 41	205 4.27 47	39 1.10 12	0	0.5	0.02	--	572	318	
9-21-65	70	7.9	1031	123 6.14 55	29 2.38 21	60 2.61 23	3 0.08 1	0	349 5.72 51	205 4.27 38	40 1.13 10	0.5 0.01	0.5	0.08	--	671	426	
4N/28W-17R 1 S 10-12-64	--	8.2	948	31 1.55 17	23 1.89 20	132 5.74 61	8 0.20 2	0	365 5.98 62	8 0.17 2	113 3.19 33	16 0.26 3	0.3	0.35	--	507	172	
7- 9-65	--	8.4	885	28 1.40 15	22 1.81 20	132 5.74 63	9 0.23 3	10 0.33 4	329 5.39 59	0	112 3.16 34	18 0.29 3	0.4	0.36	--	510	161	
9-21-65	--	8.2	931	32 1.60 17	22 1.81 19	132 5.74 61	8 0.20 2	0	353 5.79 61	12 0.25 3	114 3.21 34	11 0.18 2	0.3	0.36	--	504	171	
4N/29W-14A 2 S 10-12-64	--	8.4	3241	34 1.70 5	146 12.01 37	425 18.48 57	7 0.18 1	13 0.43 1	266 4.36 13	356 7.41 23	705 19.88 61	20 0.32 1	0.5	0.40	--	1879	686	
7-12-65	--	8.6	3328	57 2.84 8	153 12.58 37	428 18.61 54	6 0.15 2	20 0.67 2	278 4.56 13	400 8.33 24	725 20.45 60	9 0.15	0.5	0.38	--	2034	772	
9-21-65	--	7.5	4093	145 7.24 17	184 15.13 36	448 19.48 46	10 0.26 1	0	802 13.14 31	338 7.04 16	797 22.48 53	9 0.15	0.4	0.52	--	2487	1119	
																2326		

TABLE C-1  
ANALYSES OF GROUND WATER  
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per percent		million reactance value		N.		F.		Mineral constituents in parts per million	
				Calcium	Magne- sium	Sodium	Potas- sium	Carbon- ate	Bicarb- onate	Sulfate	Chlo- ride	Chlo- ride	rate	rate	rate	rate	parts per million	parts per million
Date sampled				Co	Mg	Na	K	ate	MCU <sub>3</sub>	SO <sub>4</sub>	Cl	Cl	N <sub>3</sub>	N <sub>3</sub>	F	F	SO <sub>2</sub>	SO <sub>2</sub>
SOUTH COAST HYDRO SUBUNIT																		
GOLETA HYDRO SUBAREA				T15C0					SANTA BARBARA HYDRO UNIT									
				T15C1					T1500									
5N/27W-31E 1 S 6-21-65	--	7.8	1649	296 14.77 73	24 1.97 10	80 3.48 17	3 0.08	13 0.43 2	298 4.88 24	720 14.99 73	11 0.31 2	2.3 0.04	2.3 0.04	0.5	0.42	--	1224 1297	838
SANTA BARBARA HYDRO SUBAREA				T15C2														
4N/27W-18C 1 S 8- 5-65	69	7.8	913	97 4.84 50	28 2.30 24	58 2.52 26	4 0.10 1	0 0.43 2	251 4.11 42	195 4.06 42	52 1.47 15	5 0.08 1	5 0.08 1	0.6	0.24	--	560 563	357
CARPINTERIA HYDRO SUBAREA				T15C4														
4N/25W-21N 4 S 10-12-64	--	8.1	851	84 4.19 43	34 2.80 29	61 2.65 27	1 0.03	0 0.43 2	385 6.31 64	102 2.12 22	42 1.18 12	11 0.18 2	11 0.18 2	0.5	0.10	--	560 525	350
6-14-65	--	8.1	870	78 3.89 41	35 2.88 30	64 2.78 29	2 0.05 1	0 0.43 2	372 6.10 64	102 2.12 22	43 1.21 13	7 0.11 1	7 0.11 1	0.5	0.11	--	534 515	339
9-21-65	--	8.1	839	74 3.69 41	30 2.47 28	62 2.70 30	2 0.05 1	0 0.43 2	345 5.65 62	102 2.12 23	45 1.27 14	1.0 0.02	1.0 0.02	0.5	0.11	--	484 486	308
4N/25W-22R 3 S 10-12-64	--	8.0	840	106 5.29 57	24 1.97 21	47 2.04 22	1 0.03	0 0.43 2	256 4.20 45	149 3.10 33	64 1.80 19	18 0.29 3	18 0.29 3	0.2	0.05	--	540 535	363

TABLE E-1

ANALYSES OF GROUND WATER  
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Flu- oride F	Boron B	Sul- fate SO <sub>4</sub>	IDS Evap-100°C as Computed Calc	Hardness as CaCO <sub>3</sub>
SOUTH COAST HYDRO SUBUNIT CARPINTERIA HYDRO SUBAREA				T15C0				SANTA BARBARA HYDRO UNIT				T1500					
				T15C4													
4N/25W-22R 3 S 6-14-65	64	8.0	727	68 3.39 43	27 2.22 28	51 2.22 28	2 0.05 1	0	188 3.08 39	164 3.41 43	30 0.85 11	36 0.58 7	0.6	0.12	--	470 471	281
9-21-65	63	7.9	874	99 4.94 53	27 2.22 24	50 2.17 23	1 0.03	0	289 4.74 51	157 3.27 35	33 0.93 10	25 0.40 4	0.4	0.11	--	550 535	358
4N/25W-25L 7 S 3-16-65	--	7.9	900	67 3.34 31	59 4.85 45	60 2.61 24	1 0.03	0	368 6.03 56	124 2.58 24	68 1.92 18	10 0.16 1	0.2	0.13	--	622 570	410
4N/25W-26B 2 S 6-10-65	66	7.8	714	68 3.39 44	31 2.55 33	38 1.65 22	2 0.05 1	0	210 3.44 46	155 3.23 43	25 0.71 9	8 0.13 2	0.5	0.06	--	450 431	297
9-21-65	--	7.6	824	93 4.64 52	30 2.47 28	40 1.74 20	1 0.03	0	292 4.79 54	151 3.14 35	31 0.87 10	6 0.10 1	0.4	0.04	--	525 496	356
4N/25W-28N 3 S 10-12-64	--	8.2	1280	134 6.69 46	45 3.70 26	92 4.00 28	4 0.10 1	0	409 6.70 46	235 4.89 33	109 3.07 21	1 0.02	1.0	0.14	--	872 822	520
9-21-65	66	7.6	1342	142 7.09 49	45 3.70 25	86 3.74 26	3 0.08 1	0	445 7.29 50	220 4.58 31	100 2.82 19	1.0 0.02	0.5	0.21	--	866 817	540
4N/25W-28P 2 S 9-28-65	67	7.7	979	96 4.79 46	29 2.38 23	71 3.09 30	3 0.08 1	0	355 5.82 57	109 2.27 22	75 2.12 21	1 0.02	0.5	0.22	--	590 559	359

TABLE E-1  
ANALYSES OF GROUND WATER  
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per percent					Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Fluoride	Nitrate	Iron	Copper	Lead	Vanadium	Antimony
Date sampled				mg	mg	mg	mg	mg	mg	mg	mg	mg	mg	mg	mg	mg	mg	mg
SOUTH COAST HYDRO SUBUNIT																		
CARPINTERIA HYDRO SUBAREA																		
SANTA BARBARA HYDRO UNIT																		
T1500																		
T15C0																		
T15C4																		
4N/25W-29D 3 S 10-12-64	--	8.0	785	89 4.44 50	26 2.14 24	52 2.26 25	0.03	1	0	350 5.74 64	116 2.42 27	27 0.76 8	4.3 0.07 1	0.4	0.07	--	520 488	329
6-14-65	65	7.9	646	50 2.50 36	26 2.14 31	51 2.22 32	0.05	2	0	224 3.67 53	120 2.50 36	24 0.68 10	5 0.08 1	0.6	0.06	--	380 389	232
9-21-65	65	7.9	821	90 4.49 51	24 1.97 23	52 2.26 26	0.03	1	0	345 5.65 63	117 2.44 27	28 0.79 9	3 0.05 1	0.4	0.06	--	513 485	323
4N/26W-23H 1 S 6- 2-65	--	7.4	1650	138 6.89 36	69 5.67 30	148 6.44 34	0.03	1	0	527 8.64 46	170 3.54 19	206 5.81 31	40 0.65 3	0.2	0.25	--	1062 1052	679
4N/26W-24E 4 S 6- 2-65	--	8.1	1000	50 2.50 23	37 3.04 28	121 5.26 48	0.05	2	0	393 6.44 59	63 1.31 12	115 3.24 29	0 0 3	0.2	0.30	--	588 582	277
4N/26W-24F 4 S 6- 2-65	68	7.4	1400	74 3.69 24	62 5.16 33	150 6.52 42	0.05	2	0	421 6.90 46	67 1.39 9	226 6.37 42	30 0.48 3	0.6	0.70	--	970 819	440
4N/26W-24F 7 S 10-12-64	--	7.4	1617	122 6.09 36	61 5.07 30	128 5.57 33	0.03	1	--	418 6.85 40	57 1.19 7	276 7.76 46	79 1.27 7	0.9	0.46	--	1014 931	556
6-14-65	--	7.9	1232	52 2.59 21	46 3.78 31	132 5.74 47	0.05	2	0	281 4.61 38	56 1.17 10	208 5.87 48	36 0.58 5	1.4	0.60	--	650 672	319

TABLE E-1  
ANALYSES OF GROUND WATER  
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent			Mineral constituents in parts per million			Total			
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F		Barium Ba	Silica SiO <sub>2</sub>	TDS Evap 180°C Evap 105°C Computed (20°C)
SOUTH COAST HYDRO SUBUNIT																	
CARPINTERIA HYDRO SUBAREA				T15C0													
				T15C4													
				T1500													
4N/26W-24F 7 S	--	8.0	1440	91	45	139	1	0	384	58	229	37	1.0	0.65	--	804	412
9-21-65				4.54	3.70	6.04	0.03	6.29	1.21	6.46	0.60	0.60				790	
				32	26	42		43	8	44	4						



TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million reactance value				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlor- ide Cl	Ni- trate NO <sub>3</sub>	Fluor- ide F	Boron B	Sili- ca SiO <sub>2</sub>	Total Hardness as CaCO <sub>3</sub>	
RINCON CREEK HYDRO UNIT U0100																	
4N/24W-33M 1 S 3-15-65	--	7.7	1490	218 10.88 55	69 5.67 29	71 3.09 16	2 0.05	0	365 5.98 30	599 12.47 62	54 1.52 8	0.0	0.6	0.35	--	1310 1193	828

TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				Mineral constituents in parts per million					
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	Total Dissolved Solids as CaCO <sub>3</sub>	
LOWER VENTURA R HYDRO SUBUNIT U02A0																	
VENTURA RIVER HYDRO UNIT U0200																	
2N/23W- 5L 1 S 10-21-64	--	7.7	2200	224 11.18	73 6.00	242 10.52	8 0.20	0	400 6.56	503 10.47	397 11.20	6.0 0.10	0.2	1.00	--	1894 1651	860
2N/23W- 5P 1 S 10-21-64	--	7.5	3600	427 21.31	120 9.87	320 13.91	9 0.23	0	356 5.83	526 10.95	996 28.09	4.0 0.06	0.1	0.84	--	3114 2578	1560
3N/23W- 8B 2 S 3-15-65	--	7.7	1180	123 6.14	64 5.26	70 3.04	3 0.08	0	353 5.79	300 6.25	84 2.37	19 0.31	0.2	0.60	--	860 837	570

TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				million				Mineral constituents in parts per million			
				Calcium	Magne- sium	Sodium	Potas- sium	Carbon- ate	Bicar- bonate	Sulfate	Chlo- ride	Ni- trate	Fluo- ride	Boron	Sili- ca	Total Hardness as CaCO <sub>3</sub>			
Date sampled				Ca	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>	TDS Evap 180°C at 105°C Computed			
UPPER VENTURA R HYDRO SUBUNIT				U0280															
VENTURA RIVER HYDRO UNIT				U0200															
3N/23W-5B 1 S 10-20-64	--	7.9	1084	130 6.49 54	36 2.96 24	59 2.57 21	3 0.08 1	0	301 4.93 41	263 5.48 45	54 1.52 13	9.0 0.15 1	0.7	0.54	24	793 727	473		
3N/23W-5H 1 S 10-20-64	--	7.1	1160	132 6.59 54	34 2.80 23	62 2.70 22	2 0.05	0	297 4.87 64	64 1.33 17	48 1.35 18	6.0 0.10 1	0.2	0.54	--	778 495	470		
4N/23W-9B 1 S 10-24-64	--	7.2	1000	99 4.94 43	49 4.03 35	57 2.48 22	2 0.05	0	255 4.18 37	266 5.54 50	46 1.30 12	8.0 0.13 1	0.4	0.59	--	736 653	449		
4N/23W-11D 1 S 10-22-64	--	8.0	562	44 2.20 38	19 1.56 27	46 2.00 35	1 0.03	0	235 3.85 68	26 0.54 9	39 1.10 19	13.0 0.21 4	0.8	0.02	35	320 339	188		
4N/23W-14C 1 S 3-4-65	68	7.5	1830	185 9.23 44	55 4.52 21	165 7.17 34	5 0.13 1	0	411 6.74 32	339 7.06 34	244 6.88 33	7.0 0.11 1	0.2	0.53	--	1290 1203	688		
4N/23W-14G 1 S 11-12-64	--	8.1	1996	195 9.73 46	49 4.03 19	168 7.30 34	5 0.13 1	0	386 6.33 30	283 5.89 28	318 8.97 42	2.0 0.03	0.6	0.72	--	1370 1211	689		
4N/23W-15D 2 S 3-4-65	--	7.8	570	47 2.35 39	17 1.40 24	50 2.17 36	1 0.03	0	214 3.51 58	55 1.15 19	40 1.13 19	19.0 0.31 5	0.4	0.10	--	360 335	188		
4N/23W-16C 4 S 10-21-64	64	7.7	972	119 5.94 54	34 2.80 26	49 2.13 20	2 0.05	0	267 4.38 40	253 5.27 49	37 1.04 10	9 0.15 1	0.7	0.58	19	723 654	437		

**TABLE E-1**  
**ANALYSES OF GROUND WATER**  
**LOS ANGELES DRAINAGE PROVINCE (U)**

State well number Date sampled	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million reactance value				Mineral constituents in parts per million				
				Calcium Mg	Magne- sium	Sodium Na	Potas- sium	Carbon- ate	Bicar- bonate	Sulfate	Chlo- ride	Ni- tate	Fluo- ride	Baron	Sili- ca	Total hardness as CaCO <sub>3</sub>
				Ca	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>	Computed as CaCO <sub>3</sub>
UPPER VENTURA R HYDRO SUBUNIT U0280																
VENTURA RIVER HYDRO UNIT U0200																
4N/23W-20J 2 S 10-21-64	64	7.4	1005	126 6.29	37 3.04	46 2.00	2	0	249 4.08	280 5.83	41 1.16	6 0.10	0.8	0.60	22	740 467
4N/23W-20Q 8 S 3-14-65	--	8.0	930	116 5.79	44 3.62	54 2.35	3	0	269 4.41	299 6.23	45 1.27	0.0	0.2	0.50	--	724 471
4N/23W-28K 3 S 3- 4-65	--	7.8	1740	161 8.03	65 5.35	150 6.52	4	0	325 5.33	358 7.45	245 6.91	7.0 0.11	0.2	0.60	--	1274 670
4N/23W-33M 1 S 12-17-64	--	7.8	1825	197 9.83	54 4.44	134 5.83	3	0	375 6.15	350 7.29	250 6.49	1.0 0.02	0.8	0.68	--	1350 714
5N/23W-14E 1 S 6-21-65	--	8.0	708	90 4.49	16 1.32	39 1.70	3	0	228 3.74	188 3.91	6 0.17	2.4 0.04	0.2	0.36	--	456 291
				59	17	22	1		48	50	2	1				457

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million						Total Dissolved Solids as CaCO <sub>3</sub> Computed	
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>		
Date sampled																	
VENTURA RIVER HYDRO UNIT																	
OJAI HYDRO SUBUNIT				U02C0						U0200							
UPPER OJAI HYDRO SUBAREA				U02C1													
4N/22W-9N 1 S 1-12-65	62	7.3	1642	193 9.63 50	50 4.11 21	123 5.35 28	1 0.03	0	500 8.20 43	374 7.79 41	102 2.88 15	1.0 0.02	0.6	0.52	--	1180 1091	688
4N/22W-9Q 2 S 10-28-64	--	7.8	1400	166 8.28 47	41 3.37 19	134 5.83 33	1 0.03	0	421 6.90 39	275 5.73 32	166 4.68 26	26 0.42	0.4	0.55	--	1090 1017	583
4N/22W-10K 2 S 1-12-65	56	7.4	1260	118 5.89 43	30 2.47 18	121 5.26 39	1 0.03	0	448 7.34 54	138 2.87 21	111 3.13 23	14 0.23 2	0.6	0.44	--	786 754	418
4N/22W-12N 1 S 10-28-64	--	7.5	940	74 3.69 34	24 1.97 18	120 5.22 48	1 0.03	0	502 8.23 76	13 0.27 2	69 1.95 18	27 0.44 4	0.2	1.38	--	622 576	283
4N/22W-14J 1 S 3- 4-65	--	7.6	1240	184 9.18 58	61 5.02 32	36 1.57 10	2 0.05	0	672 11.01 69	189 3.93 25	37 1.04 7	0.0 0.02	0.2	0.25	--	886 840	711
4N/22W-17G 1 S 1-12-65	--	7.5	1815	146 7.29 38	31 2.55 13	208 9.04 48	3 0.08	0	466 7.64 40	200 4.16 22	256 7.22 38	1.0 0.02	0.6	0.64	--	1124 1075	492
OJAI HYDRO SUBAREA				U02C2													
4N/22W-5L 8 S 10-29-64	--	7.9	841	108 5.39 59	22 1.81 20	42 1.83 20	1 0.03	0	237 3.88 43	183 3.81 42	32 0.90 10	25.0 0.40 4	0.5	0.04	--	600 530	360



TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million							Mineral constituents in parts per million						
				Calcium Co	Magne-sium Mg	Sodium Na	Potas-sium K	Carbon-ate CO <sub>3</sub>	Bicar-bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo-ride Cl	Ni-trate NO <sub>3</sub>	Fluo-ride F	Boron B	Sili-co SiO <sub>2</sub>	Total I.D.S. Evap 180°C Hardness as CaCO <sub>3</sub> Computed	
OJAI HYDRO SUBUNIT				U02C0													
OJAI HYDRO SUBAREA				U02C2													
VENTURA RIVER HYDRO UNIT																	
U0200																	
4N/22W- 5L 8 S 10-29-64	--	7.9	841	108 5.39 59	22 1.81 20	42 1.83 20	1 0.03	0	237 3.88 43	183 3.81 42	32 0.90 10	25 0.40 4	0.5	0.04	--	600 530	360
4N/22W- 7C 1 S 10-28-64	--	7.5	750	94 4.69 57	22 1.81 22	39 1.70 21	1 0.03	0	250 4.10 49	178 3.71 44	19 0.54 6	2.0 0.03	0.2	0.07	--	518 478	325
4N/22W- 9B 1 S 10-29-64	--	7.9	907	116 5.79 57	31 2.55 25	39 1.70 17	1 0.03	0	299 4.90 49	195 4.06 40	25 0.71 7	26.0 0.42 4	0.6	0.07	--	615 581	417
4N/23W- 2B 1 S 11-12-64	--	7.5	873	98 4.89 52	36 2.96 31	36 1.57 17	1 0.03	0	295 4.84 51	146 3.04 32	48 1.35 14	14.0 0.23 2	0.3	0.04	--	630 524	393
4N/23W-12H 2 S 10-27-64	--	7.4	860	105 5.24 53	34 2.80 29	40 1.74 18	1 0.03	0	257 4.21 44	200 4.16 43	25 0.71 7	32.0 0.52 5	0.2	0	--	626 564	402
4N/23W-12K 2 S 10-27-64	--	7.7	2500	309 15.42 54	74 6.09 21	163 7.09 25	2 0.05	0	316 5.18 18	247 5.14 18	633 17.85 63	14.0 0.23 1	0.1	0.07	--	1946 1597	1076

TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					Mineral constituents in parts per million								
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlor- ide Cl	Ni- trate NO <sub>3</sub>	Fluor- ide F	Boron B	Sili- ca SiO <sub>2</sub>	Total Hardness Equiv. 100 mg CaCO <sub>3</sub>	
OXNARD PLAIN HYDRO SUBUNIT OXNARD HYDRO SUBAREA				SANTA CLARA-CALLEGUAS HYDRO UNIT U0300													
U03AU				U03AU													
15/21W-8L 1 S 10-15-64	--	8.6	1360	48 2.40 16	30 2.47 17	220 9.57 65	8 0.20 1	0	354 5.80 40	101 2.10 14	254 6.60 46	0.0	0.2	0.85	--	668 816	
5- 5-65	66	8.1	1320	42 2.10 14	35 2.88 19	220 9.57 65	10 0.26 2	0	344 5.64 38	98 2.04 14	247 6.97 48	0.0	0.2	0.65	--	850 822	
15/21W-8L 2 S 10-15-64	--	7.5	26000	725 36.18 9	865 71.14 18	6600 286.97 72	65 1.66 1	0	210 3.44 1	1756 36.56 9	12860 362.65 90	0.0	0.1	1.94	--	25020 22976	
5- 5-65	--	7.1	26000	697 34.78 8	841 69.16 16	7450 323.93 75	100 4.26 1	0	251 4.11 1	1768 36.81 9	13587 383.15 90	0.0	0.2	1.65	--	25260 24568	
1N/21W-3L 1 S 5-17-65	--	7.2	1010	92 4.59 43	31 2.55 24	82 3.57 33	--	--	244 4.00 37	248 5.16 47	60 1.69 16	3 0.05	0.3	0.25	--	357 660 636	
1N/21W-9M 1 S 12-10-64	--	7.5	1027	90 4.49 40	28 2.30 21	98 4.26 38	4 0.10 1	0	274 4.49 40	252 5.25 47	54 1.52 15	1.0 0.02	0.6	0.42	--	690 663	
1N/21W-18A 1 S 6- 8-65	--	7.3	1170	115 5.74 45	35 2.96 23	93 4.04 31	4 0.10 1	0	296 4.85 38	310 6.45 51	51 1.44 11	0.0	0.8	0.45	--	868 756	
1N/21W-18Q 1 S 11- 4-64	--	7.9	1182	118 5.89	40 3.29	91 3.96	--	--	268 4.39	354 7.37	45 1.27	--	0.6	0.77	--	459 868	

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					Mineral constituents in parts per million									
				Calcium mg	Magnesium mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	TDS Evap 180°C as CaCO <sub>3</sub> Computed		
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																		
OXNARD PLAIN HYDRO SUBUNIT U03A0				U03A1														
OXNARD HYDRO SUBAREA																		
1N/21W-18Q 1 S 5-13-65	--	7.5	1178	108 5.39 43	40 3.29 26	91 3.96 31	--	--	274 4.49 36	326 6.79 54	47 1.33 11	0.0	0.7	0.72	--	854 748	434	
8- 6-65	--	8.2	1154	116 5.79 44	39 3.21 24	93 4.04 31	4 0.10 1	0	256 4.20 33	352 7.33 57	47 1.33 10	1 0.02	0.8	0.65	--	848 779	450	
1N/21W-19R 5 S 8-17-65	68	7.5	1164	119 5.94 46	39 3.21 25	84 3.65 28	4 0.10 1	0	286 4.69 37	329 6.85 53	45 1.27 10	1 0.02	0.7	0.69	--	820 763	458	
1N/21W-28F 2 S 6- 3-65	--	7.8	1464	121 6.04 39	47 3.87 25	127 5.52 36	4 0.10 1	0	326 5.34 35	305 6.35 42	124 3.50 23	0	0.5	0.44	--	996 889	496	
1N/21W-28N 1 S 10- 6-64	71	7.5	1360	108 5.39 32	68 5.59 33	135 5.87 35	6 0.15 1	0	299 4.90 29	295 6.14 37	199 5.61 34	3 0.05	0.1	0.43	--	970 962	549	
5- 6-65	63	8.1	1480	100 4.99 30	77 6.33 38	122 5.30 32	8 0.20 1	0	301 4.93 30	293 6.10 37	195 5.50 33	0	0.1	0.56	--	1046 944	566	
1N/21W-28N 2 S 6- 3-65	--	7.9	1963	65 3.24 16	40 3.29 17	299 13.00 66	6 0.15 1	0	359 5.88 31	221 4.60 24	306 8.63 45	0	0.5	0.81	--	1217 1115	327	
1N/21W-29C 1 S 6- 8-65	--	7.9	1255	156 7.78 52	31 2.55 17	101 4.39 30	5 0.13 1	0	294 4.82 33	398 8.29 57	53 1.49 10	1.2 0.02	0.4	0.33	--	836 890	517	

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	TDS Evap 180°C Evap 105°C Computed CaCO <sub>3</sub>		
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																		
OXNARD PLAIN HYDRO SUBUNIT U03A0																		
OXNARD HYDRO SUBAREA U03A1																		
1N/21W-29C 3 S 6- 8-65	--	7.8	1220	116 5.79 43	36 2.96 22	104 4.52 34	5 0.13 1	0	293 4.80 36	336 7.00 53	49 1.38 10	1.2 0.02	0.4	0.26	--	824 792	438	
1N/21W-29G 1 S 5-27-65	--	7.5	1550	118 5.89 35	47 3.87 23	160 6.96 41	5 0.13 1	0	297 4.87 29	441 9.18 55	95 2.68 16	1 0.02	0.6	0.68	--	1101 1014	488	
1N/21W-29R 4 S 10-15-64	--	7.6	1300	84 4.19 30	60 4.93 36	105 4.57 33	4 0.10 1	0	297 4.87 36	337 7.02 52	60 1.69 12	0.0	0.2	0.83	--	858 797	456	
5- 6-65	68	7.8	1120	92 4.59 33	59 4.85 35	100 4.35 31	4 0.10 1	0	287 4.70 34	371 7.72 55	56 1.58 11	0	0.2	0.59	--	858 824	472	
1N/21W-30A 1 S 10-23-64	--	7.6	1034	93 4.64 40	30 2.47 21	100 4.35 38	5 0.13 1	0	309 5.06 45	244 5.08 45	40 1.13 10	3.0 0.05	0.6	0.59	41	725 709	356	
1N/21W-30C 2 S 6- 8-65	--	8.0	1368	141 7.04 45	45 3.70 24	108 4.70 30	3 0.08 1	0	269 4.41 29	446 9.29 61	53 1.49 10	6 0.10 1	0.5	0.62	--	1014 935	537	
1N/21W-31A 1 S 10-23-64	--	8.0	1116	120 5.99 47	38 3.13 24	84 3.65 28	4 0.10 1	0	256 4.20 33	364 7.58 59	37 1.04 8	2.0 0.03	0.7	0.60	40	810 816	456	
6- 8-65	--	7.7	1171	123 6.14 48	35 2.88 23	84 3.65 29	4 0.10 1	0	266 4.36 34	359 7.47 58	39 1.10 9	0	0.5	0.60	--	869 776	451	



TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million								Mineral constituents in parts per million								Total hardness as CaCO <sub>3</sub>
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	Iron	Copper			
Date sampled				Ca	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>	Fe	Cu			
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																				
OXNARD PLAIN HYDRO SUBUNIT U03A0																				
OXNARD HYDRO SUBAREA U03A1																				
1N/21W-31J 1 S 10- 8-64	--	7.7	960	71 3.54 30	44 3.62 30	106 4.61 39	5 0.13 1	0	257 4.21 35	261 5.43 45	84 2.37 20	3.0 0.05	0.1	0.33	--	--	--	358		
6-21-65	--	8.2	1940	103 5.14 28	34 2.80 15	240 10.44 56	12 0.31 2	4 0.13 1	256 4.20 23	411 8.56 47	194 5.47 30	1.8 0.03	0.2	1.01	--	--	--	397		
1N/21W-31L 1 S 10- 8-64	--	7.5	860	57 2.84 26	45 3.70 34	95 4.13 38	4 0.10 1	0	230 3.77 36	270 5.62 53	42 1.18 11	0.0	0.1	0.48	--	--	--	327		
6-21-65	--	8.2	1030	70 3.49 34	19 1.56 15	122 5.30 51	2 0.05	0	211 3.46 33	244 5.08 49	61 1.72 17	4.1 0.07 1	0.2	0.79	--	--	--	253		
1N/21W-32A 1 S 10- 8-64	--	7.6	1340	48 2.40 15	64 5.26 33	187 8.13 51	5 0.13 1	0	264 4.33 27	288 6.00 38	195 5.50 35	0.0	0.2	0.40	--	--	--	383		
6-21-65	--	8.1	1830	137 6.84 39	18 1.48 8	211 9.17 52	7 0.18 1	0	278 4.56 26	377 7.85 44	188 5.30 30	2.0 0.03	0.2	1.12	--	--	--	416		
1N/21W-32A 2 S 10- 6-64	71	7.4	1010	44 2.20 19	26 2.14 19	160 6.96 61	4 0.10 1	0	178 2.92 26	192 4.00 36	151 4.26 38	0.0	0.1	0.29	--	--	--	217		
5- 6-65	70	8.2	980	53 2.64 23	52 4.28 38	100 4.35 38	4 0.10 1	0	286 4.69 42	242 5.04 45	52 1.47 13	0	0.2	0.44	--	--	--	346		



TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million reactance value					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	TDS Evap 180°C Evap 105°C as CaCO <sub>3</sub>	Total Hardness as CaCO <sub>3</sub>	
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																		
OXNARD PLAIN HYDRO SUBUNIT U03A0																		
OXNARD HYDRO SUBAREA U03A1																		
1N/21W-32C 1 S 10- 8-64	--	7.7	1000	60 2.99	50 4.11	108 4.70	0.15 1	6 0	248 4.06	307 6.39	57 1.61	0.0	0.1	0.31	--	796	355	
6-21-65	--	8.2	1170	127 6.34	12 0.99	64 2.78	0.15 1	8 0.27	219 3.59	237 4.93	59 1.66	0.6 0.01	0.2	0.83	--	776	367	
1N/21W-32G 1 S 10-16-64	--	7.6	1200	111 5.54	72 5.92	135 5.87	0.10 1	0 0	283 4.64	343 7.14	195 5.50	0.0	0.2	0.88	--	1130	573	
5- 5-65	66	8.0	1600	121 6.04	75 6.17	140 6.09	0.15 1	0 0	299 4.90	352 7.33	217 6.12	0	0.2	0.62	--	1190	611	
1N/21W-32K 1 S 10- 8-64	--	7.5	920	48 2.40	43 3.54	104 4.52	0.10 1	0 0	214 3.51	224 4.66	85 2.40	2.0 0.03	0.1	0.38	--	666	297	
6- 8-65	--	8.1	1850	101 5.04	34 2.80	225 9.78	0.15 1	8 0.27	252 4.13	389 8.10	179 5.05	2.0 0.03	0.2	0.98	--	552	392	
1N/21W-32L 1 S 10-16-64	--	7.4	1240	103 5.14	56 4.61	110 4.78	0.08 1	0 0	271 4.44	368 7.66	83 2.34	0	0.2	0.88	--	942	488	
5- 5-65	66	7.9	1300	109 5.44	60 4.93	110 4.78	0.13 1	0 0	283 4.64	362 7.54	99 2.79	0	0.4	0.71	--	956	519	
				36	32	31	1		31	50	19					885		

TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	Total D.S. Evap 180°C Evap 105°C as Computed CaCO <sub>3</sub>		
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																		
OXNARD PLAIN HYDRO SUBUNIT U03A0																		
OXNARD HYDRO SUBAREA U03A1																		
1N/21W-32Q 1 S 10-16-64	--	8.0	960	58 2.89 27	41 3.37 32	96 4.17 40	4 0.10 1	0	291 4.77 45	256 5.33 50	21 0.59 6	0.0	0.1	0.47	--	620 620	313	
5- 5-65	67	8.1	980	31 1.55 13	61 5.02 43	117 5.09 43	5 0.13 1	0	328 5.38 46	240 5.00 43	48 1.35 12	0	0.1	0.41	--	696 664	329	
1N/22W- 3F 4 S 5-13-65	--	7.4	1432	138 6.89	54 4.44	101 4.39	--	--	284 4.65	456 9.49	56 1.58	--	0.7	0.76	--	1112	567	
1N/22W- 5G 3 S 12- 4-64	67	7.4	1130	124 6.19 48	35 2.88 22	84 3.65 28	4 0.10 1	0	251 4.11 32	366 7.62 59	39 1.10 9	0	0.9	0.62	37	800 814	454	
1N/22W- 7D 1 S 11- 4-64	--	7.8	1228	120 5.99	40 3.29	93 4.04	--	--	250 4.10	385 8.02	42 1.18	--	0.8	0.74	--	882	464	
5-13-65	--	7.4	1218	115 5.74	41 3.37	93 4.04	--	--	251 4.11	376 7.83	45 1.27	--	0.8	0.71	--	877	456	
6- 8-65	--	8.0	1203	123 6.14 46	41 3.37 25	88 3.83 28	4 0.10 1	0	248 4.06 31	386 8.04 61	42 1.18 9	0	0.7	0.69	--	913 807	476	
1N/22W- 7J 4 S 8-18-65	--	7.3	1164	115 5.74 45	42 3.45 27	80 3.48 27	4 0.10 1	0	293 4.80 38	323 6.72 53	40 1.13 9	8 0.13 1	0.9	0.32	--	860 757	460	

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million reactance value				Mineral constituents in parts per million						
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	Total Dissolved Solids TDS		
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																		
U03A0																		
OXNARD PLAIN HYDRO SUBUNIT																		
OXNARD HYDRO SUBAREA																		
1N/22W-9L 3 S 10-22-64	--	7.7	1314	135 6.74 46	49 4.03 27	90 3.91 26	4 0.10 1	0	267 4.38 30	411 8.56 59	57 1.61 11	4 0.06	1.0	0.65	--	934 883	539	
1N/22W-9M 1 S 6- 8-65	--	7.9	1325	140 6.99 47	47 3.87 26	91 3.96 27	4 0.10 1	0	253 4.15 28	444 9.24 62	52 1.47 10	0	0.6	0.63	--	978 904	543	
1N/22W-9Q 2 S 11-25-64	--	7.7	3343	364 18.16 52	123 10.12 29	152 6.61 19	--	--	237 3.88 11	456 9.49 27	770 21.71 62	2 0.03	0.6	0.73	--	2361 1985	1415	
1N/22W-14F 1 S 2- 5-65	65	8.0	1278	123 6.14 45	45 3.70 27	86 3.74 27	3 0.08 1	0	265 4.34 31	404 8.41 60	47 1.33 9	0	0.9	0.70	--	925 840	492	
1N/22W-14K 1 S 11-26-64	--	7.6	1260	122 6.09	41 3.37	95 4.13	--	--	255 4.18	398 8.29	47 1.33	--	0.8	0.53	--	900	473	
5-17-65	--	7.2	1252	118 5.89	42 3.45	95 4.13	--	--	258 4.23	381 7.93	48 1.35	--	0.8	0.64	--	917	467	
1N/22W-14K 3 S 2- 5-65	67	7.8	1196	120 5.99 45	39 3.21 24	91 3.96 30	4 0.10 1	0	253 4.15 31	383 7.97 60	43 1.21 9	0	0.9	0.80	--	738 806	460	
1N/22W-14R 3 S 2- 5-65	66	7.8	1220	123 6.14 46	39 3.21 24	88 3.83 29	4 0.10 1	0	256 4.20 31	379 7.89 59	45 1.27 10	0	0.8	0.66	--	818 805	468	

**TABLE E-1**  
**ANALYSES OF GROUND WATER**  
**LOS ANGELES DRAINAGE PROVINCE (U)**

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million reactance value				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	TDS Evap 105°C Computed CaCO <sub>3</sub>	
OXNARD PLAIN HYDRO SUBUNIT OXNARD HYDRO SUBAREA																	
U03A0																	
U03A1																	
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																	
1N/22W-15B 3 S 10-22-64	--	7.8	1282	134 6.69 45	49 4.03 27	93 4.04 27	4 0.10 1	0	259 4.25 29	436 9.08 61	52 1.47 10	4.0 0.06	0.9	0.68	33	920 934	536
2- 5-65	65	7.8	1479	150 7.49 46	50 4.11 25	102 4.43 27	4 0.10 1	0	285 4.67 29	483 10.06 62	50 1.41 9	5 0.08	0.9	0.73	--	1064 580	
6- 8-65	--	8.0	1410	152 7.58 47	48 3.95 25	100 4.35 27	4 0.10 1	0	269 4.41 28	463 9.64 62	57 1.61 10	0	0.7	0.62	--	1041 577	
1N/22W-15C 1 S 10- 8-64	--	7.6	1630	187 9.33 48	65 5.35 28	104 4.52 23	5 0.13 1	0	237 3.88 20	406 8.45 43	257 7.25 37	0.0	0.4	0.62	--	1258 735	
6- 7-65	--	7.5	2743	311 15.52 53	104 8.55 29	122 5.30 18	6 0.15 1	0	225 3.69 12	465 9.68 32	582 16.41 55	5 0.08	0.7	0.68	--	2500 1204	
1N/22W-15L 1 S 10- 8-64	--	7.2	2600	332 16.57 54	95 7.81 25	148 6.44 21	6 0.15 1	0	185 3.03 10	410 8.54 28	683 19.26 62	0.0	0.4	0.69	--	2194 1220	
6- 7-65	--	7.9	3120	326 16.27 52	82 6.74 22	185 8.04 26	2 0.05 1	0	216 3.54 11	504 10.49 33	626 17.65 56	1.6 0.03	0.5	1.22	--	2530 1151	
1N/22W-15P 1 S 2- 6-65	--	7.9	1300	140 6.99 43	55 4.52 28	105 4.57 28	5 0.13 1	0	246 4.03 25	417 8.68 54	116 3.27 20	0.0	0.6	0.78	--	982 576	960



TABLE E-1

## ANALYSES OF GROUND WATER

LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million				Mineral constituents in parts per million				
				Calcium Mg	Magne- sium	Sodium Na	Potas- sium	Carbon- ate	Bicar- bonate	Sulfate	Chlo- ride	Ni- trate	Fluo- ride	Boron	Sili- co	Total Evap. 180°C Excess 105°C Computed CaCO <sub>3</sub>
Date sampled				Ca	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>	
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																
OXNARD PLAIN HYDRO SUBUNIT U03A0																
OXNARD HYDRO SUBAREA U03A1																
1N/22W-15P 1 S 5-27-65	--	8.2	1500	132 6.59 38	72 5.92 34	113 4.91 28	5 0.13 1	0	248 4.06 23	430 8.95 50	168 4.74 27	0	0.4	0.75	--	1140 626
1N/22W-16E 1 S 4-23-65	--	7.3	4902	562 28.04 53	204 16.78 32	178 7.74 15	8 0.20	0	216 3.54 7	481 10.01 19	1355 38.21 73	16 0.26	0.8	0.65	--	4063 2243
1N/22W-16Q 1 S 10-13-64	--	7.0	18000	2279 113.72 47	724 59.54 24	1600 69.57 29	31 0.79	0	423 6.93 3	1162 24.19 10	7691 216.89 87	0.0	0.1	0.97	--	17540 8670
4- 7-65	--	7.1	15929	1784 89.02 48	612 50.33 27	1050 45.65 25	25 0.64	0	186 3.05 2	914 19.03 10	5720 161.30 88	11 0.18	0.8	0.70	--	13696 12440 6973
1N/22W-17C 1 S 6-23-65	71	8.4	1405	146 7.29 45	29 2.38 15	145 6.30 39	4 0.10 1	12 0.40 3	220 3.61 23	460 9.58 60	81 2.28 14	0.4 0.01	0.6	1.19	--	848 987 10209
1N/22W-17J 2 S 10-23-64	--	8.0	1600	156 7.78 42	62 5.10 28	123 5.35 29	5 0.13 1	0	248 4.06 22	396 8.24 45	209 5.89 32	0	0.6	0.82	--	700 1074 948
12-24-64	--	7.7	1380	94 4.69 32	57 4.69 32	120 5.22 35	5 0.13 1	0	109 1.79 12	332 6.91 48	205 5.78 40	0.0	0.4	0.75	--	868 1037 976
2- 6-65	65	7.8	1620	141 7.04 43	58 4.77 29	104 4.52 28	3 0.08	0	222 3.64 22	365 7.60 45	194 5.47 33	0	0.9	0.98	--	591



TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in							parts per million equivalents per percent				Mineral constituents in parts per million				
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boreon B	Sili- ca SiO <sub>2</sub>	I.O.S. Evap 180°C Evap 105°C Computed	Total Hardness as CaCO <sub>3</sub>		
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																			
OXNARD PLAIN HYDRO SUBUNIT U03A0																			
OXNARD HYDRO SUBAREA U03A1																			
1N/22W-17J 2 S 4-21-65	--	7.5	1399	70 3.49 29	51 4.19 35	98 4.26 35	5 0.13 1	0	98 1.61 13	304 6.33 52	148 4.17 34	0	0.7	0.70	--	720 726	384		
1N/22W-17M 2 S 4-22-65	--	7.7	1134	112 5.59 45	39 3.21 26	83 3.61 29	6 0.15 1	0	266 4.36 36	322 6.70 55	40 1.13 9	4 0.06	0.9	0.64	--	792 738	440		
1N/22W-17M 3 S 3-30-65	--	6.5	18000	1182 58.98 21	584 48.03 17	3840 166.96 61	55 1.41 1	0	19 0.31 5	1177 24.51 9	8704 245.45 91	0.0	0.2	0.88	--	19100 15552	5355		
1N/22W-17Q 1 S 10-22-64	67	5.6	20000	1467 73.20 28	595 48.93 19	3200 139.14 53	30 0.77	0	5 0.08 8	1099 22.88 9	8600 242.52 91	0.0	0.1	0.44	--	17600 14994	6111		
12-24-64	--	5.8	8100	483 24.10 26	261 21.46 23	1063 46.22 50	15 0.38	0	8 0.13 10	958 19.95 21	2585 72.90 78	0.0	0.2	0.85	--	5210 5370	2280		
2- 4-65	--	6.3	16230	830 41.42 24	402 33.06 19	2260 98.26 56	55 1.41 1	0	10 0.16 24	856 17.82 10	5587 157.55 90	9.3 0.15	1.1	0.91	--	11345 10006	3727		
4-21-65	--	6.1	20833	968 48.30 21	521 42.85 19	3200 139.14 60	29 0.74	0	24 0.39 8	1098 22.86 10	7325 206.57 90	6 0.10	1.2	1.25	--	13980 13161	4561		
1N/22W-18E 1 S 10-22-64	--	8.3	1123	116 5.79 45	38 3.13 24	89 3.87 30	4 0.10 1	8 0.27 2	231 3.79 30	357 7.43 59	40 1.13 9	1.0 0.02	0.7	0.58	--	815 768	446		

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent reactance value					Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	TD <sub>5</sub> Evap. Residue at 100°C Computed	Total Hardness at 100°C CaCO <sub>3</sub>	
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																		
OXNARD PLAIN HYDRO SUBUNIT				U03A0					U03A1									
OXNARD HYDRO SUBAREA																		
1N/22W-18E 1 S 6- 3-65	--	7.7	1160	94 4.69 36	52 4.28 33	93 4.04 31	4 0.10 1	0	251 4.11 31	379 7.89 59	46 1.30 10	0	0.4	0.78	--	826 793	449	
1N/22W-18P 1 S 10-22-64	--	7.7	1157	115 5.74 44	41 3.37 26	90 3.91 30	4 0.10 1	0	236 3.87 30	371 7.72 60	41 1.16 9	2.0 0.03	0.9	0.64	--	827 782	456	
6- 3-65	--	7.8	1160	120 5.99 43	46 3.78 27	93 4.04 29	4 0.10 1	0	247 4.05 29	411 8.56 61	51 1.44 10	0	0.6	0.98	--	890 848	489	
1N/22W-19A 1 S 10-22-64	--	7.8	1141	121 6.04 48	34 2.80 22	81 3.52 28	4 0.10 1	0	255 4.18 33	351 7.31 58	40 1.13 9	2.0 0.03	0.7	0.58	--	822 760	442	
1N/22W-20E 1 S 4-16-65	--	7.4	12821	624 31.14 24	340 27.96 21	1620 70.44 54	22 0.56	0	29 0.48	486 10.12 8	4300 121.26 92	12 0.19	0.6	0.70	--	8875 7420	2957	
1N/22W-20F 2 S 6- 3-65	--	7.8	1130	115 5.74 43	43 3.54 27	89 3.87 29	4 0.10 1	0	250 4.10 31	383 7.97 60	45 1.27 10	0	0.2	0.65	--	828 803	464	
1N/22W-20H 2 S 11- 4-64	--	7.9	1237	134 6.69	32 2.63	93 4.04	--	--	257 4.21	380 7.91	42 1.18	--	0.3	0.60	--	880	466	
1N/22W-20N 2 S 4-22-65	64	7.3	1208	120 5.99 45	43 3.54 27	84 3.65 27	5 0.13 1	0	242 3.97 30	366 7.62 58	57 1.61 12	2 0.03	0.9	0.56	--	870 797	477	

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million							Mineral constituents in parts per million						
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	TDS Evap. Residue as CaCO <sub>3</sub>	
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																	
OXNARD PLAIN HYDRO SUBUNIT				U03A0													
OXNARD HYDRO SUBAREA				U03A1													
1N/22W-20R 1 S 10-23-64	--	6.8	28000	1269 63.32 14	1019 83.80 19	6750 293.49 66	118 3.02 1	0	67 1.10 91	1979 41.20 9	14450 407.49 91	0.0	0.1	1.46	--	27160 7362	
12-23-64	--	6.0	23500	1280 63.87 19	840 69.08 21	4600 200.01 60	35 0.89 1	0	11 0.18 88	1913 39.83 12	10450 294.69 88	0.0	0.1	2.07	--	19080 6653	
2- 4-65	67	4.6	36630	1529 76.30 17	1074 88.33 19	6575 285.88 63	141 3.61 1	0	5 0.08 92	1809 37.66 8	15360 433.15 92	2.5 0.04	0.8	2.12	--	28120 8238	
3-10-65	--	6.3	30000	1499 74.80 15	1119 92.03 19	7400 321.75 65	120 3.07 1	0	25 0.41 91	2176 45.30 9	15927 449.14 91	0.0	0.1	1.94	--	33180 8348	
4-21-65	--	5.1	37037	1496 74.65 16	1087 89.39 20	6700 291.32 64	94 2.40 1	0	7 0.11 8	1746 36.35 8	14900 420.18 92	6.0 0.10	1.8	2.00	--	28255 8209	
1N/22W-21B 1 S 10-22-64	--	7.7	3185	350 17.47 51	113 9.29 27	168 7.30 21	7 0.18 1	0	168 2.75 8	432 8.99 26	795 22.42 66	3.0 0.05	0.9	0.60	36	2115 1339	
6-10-65	--	7.3	4789	514 25.65 50	153 12.58 24	299 13.00 25	8 0.20 1	0	219 3.59 7	498 10.37 20	1300 36.66 72	0	0.6	0.61	--	3420 1913	
1N/22W-21B 3 S 6-10-65	--	7.8	1172	125 6.24 48	33 2.71 21	88 3.83 30	5 0.13 1	0	249 4.08 32	370 7.70 60	39 1.10 9	0	0.5	0.56	--	870 783	

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million							Mineral constituents in parts per million																				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	Total hardness as CaCO <sub>3</sub>															
Date sampled																															
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																															
OXNARD PLAIN HYDRO SUBUNIT				U03A0														U03A1													
OXNARD HYDRO SUBAREA																															
1N/22W-21H 1 S 2- 6-65	--	7.9	1183	116 5.79 45	41 3.37 26	80 3.48 27	5 0.13 1	0	252 4.13 31	371 7.72 59	47 1.33 10	0	0.9	0.88	--	812 786	458														
1N/22W-21J 2 S 2- 6-65	67	7.5	4200	487 24.30 43	207 17.02 30	342 14.87 26	20 0.51 1	0	241 3.95 7	649 13.51 24	1394 39.31 69	1 0.02	0.2	0.84	--	3600 3219	2068														
1N/22W-21L 1 S 10-22-64	--	7.1	4300	483 24.10 46	180 14.80 28	310 13.48 26	10 0.26	0	44 0.72 1	315 6.56 13	1592 44.89 86	0	0.1	0.65	--	2496 2912	1947														
12-23-64	--	7.2	5000	483 24.10 43	235 19.33 35	280 12.17 22	9 0.23	0	32 0.52 1	337 7.02 13	1684 47.49 86	0.0	0.1	0.90	--	3014 3045	2173														
2- 4-65	--	7.4	6116	666 33.23 53	197 16.20 26	294 12.78 20	16 0.41 1	0	217 3.56 6	432 8.99 14	1800 50.76 80	0	0.7	0.68	--	4523 3513	2473														
4-20-65	--	7.0	5848	550 27.45 46	217 17.85 30	330 14.35 24	12 0.31 1	0	54 0.89 1	378 7.87 13	1820 51.32 85	6 0.10	0.8	0.74	--	3580 3341	2267														
1N/22W-21L 2 S 4-14-65	--	8.5	1181	21 1.05 10	3 0.25 2	190 8.26 82	19 0.49 5	1 0.03	27 0.44 4	159 3.31 32	228 6.43 63	1 0.02	0.5	0.42	--	625 636	65														
1N/22W-22A 1 S 3- 6-65	64	7.7	1260	124 6.19 42	47 3.87 26	100 4.35 30	9 0.23 2	0	264 4.33 29	381 7.93 54	87 2.45 17	0.0	0.6	0.68	--	996 879	503														



TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million											
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- co SiO <sub>2</sub>	Total Hardness as CaCO <sub>3</sub>					
				SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																	
				U03A0						U03A1											
OXNARD PLAIN HYDRO SUBUNIT				OXNARD HYDRO SUBAREA																	
1N/22W-22C 1 S 10- 8-64				--	7.8	1700	125 6.24 32	93 7.65 39	123 5.35 28	0.13 1	5	0	254 4.16 22	406 8.45 44	229 6.46 34	0.0	0.4	0.48	--	1264 1107	695
1N/22W-22H 1 S 2- 6-65				--	7.8	2541	271 13.52 53	83 6.83 27	117 5.09 20	0.13 1	5	0	236 3.87 15	366 7.62 30	492 13.87 55	0	0.7	0.75	--	1766 1451	1018
2- 8-65				66	8.0	2288	243 12.13 52	75 6.17 27	110 4.78 21	0.05	2	0	240 3.93 17	363 7.56 33	415 11.70 50	0	0.7	0.77	--	1477 1327	916
2- 8-65				66	7.7	2273	242 12.08 52	74 6.09 26	108 4.70 20	0.20 1	8	0	242 3.97 17	361 7.52 32	413 11.65 50	0	0.7	0.81	--	1508 1326	909
2-12-65				66	7.8	2377	259 12.92 54	75 6.17 26	112 4.87 20	0.15 1	6	0	237 3.88 16	369 7.68 32	442 12.46 52	0	0.8	0.68	--	1720 1381	955
2-12-65				66	7.7	2272	247 12.33 53	73 6.00 26	110 4.78 21	0.13 1	5	0	243 3.98 17	367 7.64 33	418 11.79 50	0	0.8	0.68	--	1649 1341	917
2-13-65				60	7.6	2245	245 12.23 51	85 6.99 29	108 4.70 20	0.13 1	5	0	242 3.97 17	370 7.70 33	422 11.90 50	0	0.6	0.71	--	1568 1355	962
2-13-65				65	8.1	2236	239 11.93 52	72 5.92 26	113 4.91 21	0.15 1	6	0	230 3.77 16	370 7.70 33	427 12.04 51	0	0.8	0.56	--	1491 1341	893



ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent					Mineral constituents in parts per million				
				Calcium Mg	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- co SiO <sub>2</sub>	TDS Evap 180°C Evap 105°C Computed CaCO <sub>3</sub>		
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																		
OXNARD PLAIN HYDRO SUBUNIT				U03A0														
OXNARD HYDRO SUBAREA				U03A1														
1N/22W-22H 1 S 2-13-65	62	7.5	2240	241 12.03 53	68 5.59 25	110 4.78 21	0.15 1	6	0	240 3.93 17	369 7.68 33	420 11.84 50	0	0.8	0.56	--	1539 1333	882
2-14-65	66	7.8	2209	239 11.93 53	69 5.67 25	109 4.74 21	8 0.20 1	0	0	243 3.98 17	369 7.68 33	420 11.84 50	0	0.8	0.73	--	1525 1335	881
2-15-65	61	7.6	2200	213 10.63 47	79 6.50 29	122 5.30 23	6 0.15 1	0	0	238 3.90 17	358 7.45 32	432 12.18 52	0.0	0.4	0.69	--	1770 1328	857
2-15-65	66	7.5	2250	236 11.78 50	77 6.33 27	127 5.52 23	6 0.15 1	0	0	236 3.87 17	357 7.43 32	427 12.04 52	0.0	0.4	0.67	--	1770 1347	906
2-15-65	--	7.8	1900	254 12.67 53	69 5.67 24	120 5.22 22	6 0.15 1	0	0	246 4.03 17	381 7.93 34	411 11.59 49	0.0	0.6	0.60	--	1580 1363	918
1N/22W-22H 2 S 10-21-64	--	8.2	1850	233 11.63 50	73 6.00 26	126 5.48 24	7 0.18 1	0	0	337 5.52 23	736 15.32 65	103 2.90 12	0.0	0.2	0.85	--	1560 1445	882
11-20-64	68	7.8	2650	339 16.92 53	100 8.22 26	147 6.39 20	7 0.18 1	--	--	228 3.74 12	377 7.85 25	695 19.60 63	0.0	0.2	0.65	--	2144 1778	1258
1-12-65	68	7.6	2874	337 16.82 54	98 8.06 26	138 6.00 19	7 0.18 1	0	0	224 3.67 12	358 7.45 24	693 19.54 64	7.0 0.11	0.8	0.76	--	2140 1750	1245

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million							
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	Total dissolved solids Hardness CaCO <sub>3</sub>	
OXNARD PLAIN HYDRO SUBUNIT U03A0				SANTA CLARA-CALLEGUAS HYDRO UNIT U0300													
OXNARD HYDRO SUBAREA U03A1																	
1N/22W-22H 2 S 4-20-65	--	7.4	3344	336 16.77 53	109 8.96 28	136 5.91 19	7 0.18 1	0	222 3.64 11	366 7.62 24	725 20.45 64	6.0 0.10	0.8	0.74	--	2010 1796	
1N/22W-22H 3 S 10-21-64	--	8.1	2600	323 16.12 57	72 5.92 21	140 6.09 22	6 0.15 1	0	225 3.69 13	365 7.60 27	613 17.29 60	0.0	0.4	0.79	--	1730 1103	
11-20-64	69	8.0	1870	188 9.38 40	100 8.22 35	132 5.74 24	6 0.15 1	--	350 5.74 24	728 15.16 64	100 2.82 12	0.0	0.2	0.71	--	1628 1427	
1N/22W-22H 4 S 10-21-64	--	9.0	4100	457 22.80 37	142 11.68 19	620 26.96 43	23 0.59 1	13 0.43 1	0	2568 53.47 85	316 8.91 14	0.0	1.0	1.64	--	4564 4142	
11-20-64	69	9.5	3950	459 22.90 42	95 7.81 14	525 22.83 42	26 0.66 1	24 0.80 1	8 0.13 24	2168 45.14 84	280 7.90 15	0.0	0.4	0.88	--	3794 3582	
1N/22W-22H 5 S 12-22-64	--	8.0	1600	170 8.48 48	52 4.28 24	113 4.91 28	5 0.13 1	0	256 4.20 24	370 7.70 44	200 5.64 32	0.0	0.6	0.75	--	1062 1037	
1-12-65	67	7.7	1572	169 8.43 49	53 4.36 25	100 4.35 25	5 0.13 1	0	254 4.16 24	370 7.70 45	192 5.41 31	1.0 0.02	0.8	0.76	--	1090 1016	
3-10-65	--	7.8	1300	158 7.88 48	47 3.87 24	101 4.39 27	5 0.13 1	0	258 4.23 26	383 7.97 49	142 4.00 25	0.0	0.6	0.82	--	1090 964	

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent reactance value					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boro- n B	Sili- co SiO <sub>2</sub>	IO <sub>5</sub> Evap 80°C Evap 105°C Computed as CaCO <sub>3</sub>	Total Hardness as CaCO <sub>3</sub>	
OXNARD PLAIN HYDRO SUBUNIT OXNARD HYDRO SUBAREA																		
U03A0 U03A1																		
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																		
1N/22W-22H 5 S 4-18-65	--	7.6	1443	151 7.53 47	49 4.03 25	98 4.26 27	5 0.13 1	0	259 4.25 27	386 8.04 50	130 3.67 23	0	0.9	0.70	--	1000 948	578	
1N/22W-22J 1 S 10- 8-64	--	7.4	1140	120 5.99 40	53 4.36 29	100 4.35 29	4 0.10 1	0	284 4.65 32	402 8.37 57	57 1.61 11	0.0	0.6	0.55	--	924 877	518	
5-26-65	--	7.7	1076	123 6.14 46	42 3.45 26	86 3.74 28	4 0.10 1	0	256 4.20 32	380 7.91 59	42 1.18 9	1 0.02	0.9	0.64	--	880 805	480	
1N/22W-22J 2 S 10- 8-64	--	7.6	1110	114 5.69 40	52 4.28 30	92 4.00 28	4 0.10 1	0	250 4.10 30	376 7.83 56	69 1.95 14	0.0	0.4	0.71	--	908 831	499	
5-27-65	--	7.7	1286	133 6.64 48	41 3.37 24	88 3.83 27	5 0.13 1	0	254 4.16 30	356 7.41 53	84 2.37 17	0	0.8	0.70	--	914 833	501	
1N/22W-22J 3 S 10- 8-64	69	7.4	2350	265 13.22 50	90 7.40 28	135 5.87 22	5 0.13	0	215 3.52 13	327 6.81 26	573 16.16 61	0.0	0.4	0.67	--	1738 1502	1032	
6- 3-65	--	7.8	2420	251 12.52 50	88 7.24 29	124 5.39 21	5 0.13 1	0	206 3.38 14	352 7.33 30	489 13.79 56	0	0.7	0.71	--	2041 1412	989	
1N/22W-22J 4 S 10- 8-64	68	7.5	2300	267 13.32 49	96 7.90 29	132 5.74 21	5 0.13	0	208 3.41 13	386 8.04 30	532 15.00 57	0.0	0.4	0.60	--	1778 1521	1062	

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per percent					Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	TDS Evap. 180°C Evap. 105°C Computed	Total hardness as CaCO <sub>3</sub>	
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																		
OXNARD PLAIN HYDRO SUBUNIT U03A0																		
OXNARD HYDRO SUBAREA U03A1																		
1N/22W-22J 4 S 2- 3-65	65	7.7	2882	314 15.67 53	103 8.47 29	122 5.30 18	0.18 1	7	0	244 4.00 14	399 8.31 28	610 17.20 58	0	0.8	0.75	--	2178 1676	1208
2-26-65	66	7.4	3187	371 18.51 54	118 9.70 28	132 5.74 17	0.20 1	8	0	232 3.80 11	401 8.35 24	787 22.19 65	0	1.1	0.62	--	2688 1933	1412
1N/22W-22J 5 S 1-27-65	70	7.6	1517	165 8.23 49	49 4.03 24	98 4.26 26	0.13 1	5	0	256 4.20 25	349 7.27 44	178 5.02 30	2.0 0.03	0.8	0.78	--	1020 973	613
2-10-65	62	7.7	1600	162 8.08 46	59 4.85 28	105 4.57 26	0.13 1	5	0	250 4.10 24	342 7.12 41	220 6.20 36	0.0	0.4	0.64	--	1236 1017	647
2-11-65	63	7.6	1650	144 7.19 41	68 5.59 32	110 4.78 27	0.13 1	5	0	261 4.28 24	339 7.06 40	219 6.18 35	0.0	0.4	0.60	--	1204 1014	640
2-11-65	64	7.9	1500	141 7.04 40	73 6.00 34	105 4.57 26	0.13 1	5	0	247 4.05 23	346 7.20 41	220 6.20 36	0.0	0.4	0.80	--	1210 1013	653
2-12-65	64	7.9	1500	141 7.04 40	73 6.00 34	105 4.57 26	0.13 1	5	0	249 4.08 23	356 7.41 42	220 6.20 35	0.0	0.6	0.78	--	1230 1024	653
2-12-65	60	7.9	1525	143 7.14 40	72 5.92 33	104 4.52 26	0.13 1	5	0	247 4.05 23	352 7.33 42	218 6.15 35	0.0	0.6	0.73	--	1236 1017	654



ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent reactance value					Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	IO <sub>3</sub> -	Total hardness as CaCO <sub>3</sub>	
Date sampled				Co	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>	Computed		
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																		
OXNARD PLAIN HYDRO SUBUNIT U03A0																		
OXNARD HYDRO SUBAREA U03A1																		
1N/22W-22J 5 S 2-13-65	61	7.8	1590	166 8.28 47	56 4.61 26	105 4.57 26	0.13	5 0.13 1	0	244 4.00 23	341 7.10 41	219 6.18 36	0.0	0.76	--	1246 1013	645	
2-13-65	63	7.7	1600	163 8.13 40	58 4.77 34	105 4.57 25	0.13	5 0.13 1	0	241 3.95 23	341 7.10 42	222 6.26 35	0.0	0.59	--	1254 1013	646	
2-14-65	63	7.7	1600	162 8.08 46	58 4.77 27	105 4.57 26	0.13	5 0.13 1	0	253 4.15 24	344 7.16 41	219 6.18 35	0.0	0.71	--	1224 1019	643	
2-15-65	61	7.7	1640	141 7.04 39	72 5.92 33	113 4.91 27	0.13	5 0.13 1	0	254 4.16 24	341 7.10 40	227 6.40 36	0.0	0.52	--	1224 1025	649	
2-15-65	64	7.8	1650	138 6.89 38	73 6.00 33	113 4.91 27	0.13	5 0.13 1	0	242 3.97 23	343 7.14 41	223 6.29 36	0.0	0.64	--	1196 1015	645	
2-15-65	63	7.6	1650	142 7.09 40	71 5.84 33	110 4.78 27	0.13	5 0.13 1	0	250 4.10 23	344 7.16 41	220 6.20 36	0.0	0.72	--	1250 1016	647	
1N/22W-22K 1 S 5-27-65	--	7.3	3399	388 19.36 54	121 9.95 28	144 6.26 18	0.20	8 0.20 1	0	232 3.80 11	398 8.29 23	825 23.27 66	2 0.03	0.70	--	2460 2002	1467	
1N/22W-22K 2 S 10-20-64	--	8.0	1400	106 5.29 34	64 5.26 34	110 4.78 31	0.13	5 0.13 1	0	256 4.20 27	368 7.66 50	124 3.50 23	0.0	0.82	--	1038 904	528	



**TABLE E-1**  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per percent					Mineral constituents in parts per million				
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- co SiO <sub>2</sub>	T.D.S. Evap 105°C as Computed	Total Hardness as CaCO <sub>3</sub>	
OXNARD PLAIN HYDRO SUBUNIT																		
OXNARD HYDRO SUBAREA																		
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																		
U03A0 U03A1																		
1N/22W-22K 2 S 12-22-64	--	7.4	2200	225 11.23 46	85 6.99 29	135 5.87 24	6 0.15 1	0	251 4.11 17	383 7.97 33	423 11.93 50	0.0	0.4	0.75	--	1466 1382	912	
1- 3-65	67	7.6	1852	208 10.38 52	59 4.85 24	110 4.78 24	5 0.13 1	0	245 4.02 20	362 7.54 38	298 8.40 42	7.0 0.11 1	0.8	0.76	--	1280 1171	762	
3- 9-65	--	7.8	1575	183 9.13 45	56 4.61 23	143 6.22 31	5 0.13 1	0	239 3.92 19	452 9.41 46	249 7.02 34	0.0	0.6	0.53	--	1146 1207	688	
4-20-65	--	7.7	1953	208 10.38 51	63 5.18 25	108 4.70 23	6 0.15 1	0	242 3.97 19	370 7.70 37	318 8.97 43	10 0.16 1	0.9	0.74	--	1395 1204	779	
1N/22W-22K 3 S 10-20-64	--	8.0	4200	383 19.11 32	158 12.99 22	645 28.04 46	7 0.18 1	0	363 5.95 10	2301 47.91 78	262 7.39 12	0.0	0.8	1.26	--	4146 3936	1606	
1N/22W-22L 2 S 10- 8-64	--	8.0	3300	445 22.21 58	173 14.23 37	35 1.52 4	2 0.05 1	0	221 3.62 9	410 8.54 22	938 26.45 69	0.0	0.2	0.81	--	2652 2113	1823	
1N/22W-22M 3 S 2- 9-65	66	7.3	5118	584 29.14 55	194 15.95 30	182 7.91 15	8 0.20 1	0	201 3.29 6	463 9.64 18	1410 39.76 75	0	0.7	0.75	--	3976 2941	2256	
1N/22W-22M 8 S 5-26-65	--	7.4	5784	688 34.33 56	231 19.00 31	189 8.22 13	9 0.23 1	0	207 3.39 6	439 9.14 15	1715 48.36 79	0	0.8	0.65	--	4196 3374	2669	

TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent reactance value					Mineral constituents in parts per million									
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlor- ide Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	I.D.S. Evap 180°C Hardness as CaCO <sub>3</sub>							
OXNARD PLAIN HYDRO SUBUNIT OXNARD HYDRO SUBAREA				U03A0										SANTA CLARA-CALLEGUAS HYDRO UNIT U0300									
				U03A1																			
1N/22W-22P 2 S 6-23-65	68	7.8	3770	513 25.60 70	40 3.29 9	170 7.39 20	14 0.36 1	0	161 2.64 7	512 10.66 29	850 23.97 64	0.8 0.01	0.4	1.28	--	2588 2181	1446						
1N/22W-22Q 2 S 10- 9-64	--	8.1	1080	112 5.59 43	43 3.54 27	88 3.83 29	4 0.10 1	0	264 4.33 34	351 7.31 57	44 1.24 10	0.0	0.6	0.60	--	824 773	457						
2- 6-65	67	8.0	1010	112 5.59 42	46 3.78 29	87 3.78 29	4 0.10 1	0	268 4.39 33	358 7.45 56	48 1.35 10	0.0	0.6	0.64	--	870 788	469						
1N/22W-22R 1 S 2- 4-65	--	7.7	1015	116 5.79 42	45 3.70 27	93 4.04 30	5 0.13 1	0	349 5.72 41	303 6.31 46	57 1.61 12	9.0 0.15 1	0.2	0.76	--	846 801	475						
1N/22W-23B 2 S 6- 3-65	--	7.9	1180	116 5.79 41	51 4.19 30	90 3.91 28	4 0.10 1	0	258 4.23 31	392 8.16 59	48 1.35 10	0	0.4	0.70	--	858 829	499						
1N/22W-23C 1 S 10- 9-64	--	7.6	1080	112 5.59 42	44 3.62 27	91 3.96 30	5 0.13 1	0	260 4.26 33	359 7.47 58	44 1.24 10	0.0	0.6	0.57	--	858 784	461						
10-22-64	69	8.3	1171	122 6.09 46	39 3.21 24	86 3.74 28	4 0.10 1	15 0.50 4	233 3.62 29	374 7.79 58	44 1.24 9	0.0	1.0	0.56	37	860 837	465						
2- 5-65	67	7.9	1211	114 5.69 44	41 3.37 26	84 3.65 28	5 0.13 1	0	264 4.33 33	361 7.52 58	41 1.16 9	0.0	0.8	0.75	--	763 777	453						

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents percent				Mineral constituents in parts per million					
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Barium Ba	Silica SiO <sub>2</sub>	Total hardness as CaCO <sub>3</sub>	
OXNARD PLAIN HYDRO SUBUNIT																	
OXNARD HYDRO SUBAREA																	
U03A0																	
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																	
U03A1																	
1N/22W-23C 1 S 5-27-65	--	8.0	1160	83 4.14 31	62 5.10 38	91 3.96 30	4 0.10 1	0	258 4.23 31	378 7.87 58	52 1.47 11	0	0.4	0.67	--	850 798	462
1N/22W-23C 2 S 10- 9-64	--	7.6	1060	101 5.04 40	41 3.37 27	92 4.00 32	6 0.15 1	0	190 3.11 24	403 8.39 66	46 1.30 10	0.0	0.6	0.55	--	810 784	421
1N/22W-23E 2 S 10-20-64	--	8.1	1520	123 6.14 35	75 6.17 35	115 5.00 29	5 0.13 1	0	245 4.02 23	352 7.33 42	211 5.95 34	0.0	0.4	0.91	--	1186 1003	616
11-20-64	68	7.9	1620	124 6.19 34	85 6.99 38	112 4.87 27	5 0.13 1	--	244 4.00 22	366 7.62 42	237 6.68 37	0.0	0.6	0.82	--	1302 1050	660
12-22-64	--	7.9	1700	195 9.73 51	52 4.28 22	115 5.00 26	5 0.13 1	0	247 4.05 21	362 7.54 40	260 7.33 39	0.0	0.6	0.82	--	1154 1112	701
1-12-65	66	7.6	1739	188 9.38 50	59 4.85 26	105 4.57 24	5 0.13 1	0	245 4.02 21	349 7.27 39	260 7.33 39	7.0 0.11 1	0.8	0.74	--	1220 1095	712
3-10-65	--	7.9	1550	174 8.68 49	50 4.11 23	108 4.70 27	6 0.15 1	0	257 4.21 24	352 7.33 42	213 6.01 34	0.0	0.6	0.79	--	1186 1031	640
4-20-65	--	7.7	1670	171 8.53 48	58 4.77 27	100 4.35 24	5 0.13 1	0	249 4.08 23	365 7.60 42	222 6.26 35	0	0.9	0.70	--	1220 1045	666

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million							Mineral constituents in parts per million						
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	Total Inorganic Carbonate Equiv. as CaCO <sub>3</sub>	Hardness as CaCO <sub>3</sub>
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																	
OXNARD PLAIN HYDRO SUBUNIT U03A0				U03A1													
OXNARD HYDRO SUBAREA																	
1N/22W-23E 3 S 10-20-64	--	8.0	7000	556 27.74 24	325 26.73 24	1350 58.70 52	11 0.28	0	408 6.69 6	4491 93.50 83	415 11.70 10	30.0 0.48	1.4	7.90	--	7870 7388	2726
11-20-64	69	8.0	7800	535 26.70 24	316 25.99 23	1380 60.00 53	13 0.33	--	420 6.88 6	4538 94.48 82	472 13.31 12	4.0 0.06	1.4	7.70	--	8360 7474	2637
1N/22W-23N 2 S 2-4-65	--	7.8	1125	126 6.29 44	41 3.37 24	103 4.48 31	5 0.13	0	304 4.98 35	338 7.04 49	79 2.23 16	4.0 0.06	0.4	0.79	--	876 847	483
1N/22W-23Q 1 S 2-4-65	66	7.8	1546	159 7.93 48	49 4.03 25	97 4.22 26	8 0.20 1	0	259 4.25 26	403 8.39 50	142 4.00 24	0.0	0.8	0.63	--	1017 987	598
6-1-65	--	7.9	1500	102 5.09 30	85 6.99 41	115 5.00 29	5 0.13 1	0	189 3.10 18	417 8.68 51	185 5.22 31	0	0.6	0.61	--	1116 1003	604
1N/22W-26A 1 S 10-22-64	70	8.4	1458	155 7.73 45	53 4.36 25	115 5.00 29	5 0.13 1	10 0.33 2	267 4.38 26	506 10.53 61	59 1.66 10	16 0.26 2	0.9	0.62	33	1120 1085	605
1N/22W-26D 4 S 6-1-65	--	7.9	1340	92 4.59 30	73 6.00 39	110 4.78 31	4 0.10 1	0	266 4.36 28	468 9.74 62	56 1.58 10	9 0.15 1	0.2	0.73	--	992 944	530
1N/22W-26J 2 S 6-1-65	--	8.0	1117	109 5.44 44	36 2.96 24	88 3.83 31	4 0.10 1	0	313 5.13 43	249 5.18 43	60 1.69 14	0	0.8	0.67	--	805 701	420



TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million reactance value					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	TDS Evap-180°C as Evap-105°C Computed CaCO <sub>3</sub>		
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																		
OXNARD PLAIN HYDRO SUBUNIT U03A0																		
OXNARD HYDRO SUBAREA U03A1																		
1N/22W-26M 1 S 10-14-64	--	7.5	1700	110 5.49 29	87 7.15 38	140 6.09 32	6 0.15 1	0	254 4.16 22	376 7.83 42	238 6.71 36	0.0	0.6	0.88	--	1280 1083	633	
2- 9-65	--	7.9	1779	172 8.58 46	53 4.36 24	124 5.39 29	5 0.13 1	0	266 4.36 23	363 7.56 40	241 6.80 36	0.0	0.8	0.74	--	1077 1090	648	
5- 7-65	66	8.1	1650	108 5.39 28	91 7.48 39	145 6.30 33	7 0.18 1	0	272 4.46 23	414 8.62 44	228 6.43 33	0	0.4	0.73	--	1208 1128	644	
1N/22W-26M 3 S 6- 1-65	68	8.2	1200	84 4.19 30	66 5.43 38	101 4.39 31	5 0.13 1	0	261 4.28 30	415 8.64 60	48 1.35 9	2 0.03	0.2	0.51	--	872 850	481	
1N/22W-26Q 1 S 10-22-64	66	7.2	1120	115 5.74 46	37 3.04 24	85 3.70 29	4 0.10 1	0	237 3.88 31	363 7.56 60	39 1.10 9	1.0 0.02	0.4	0.59	--	858 761	439	
6- 1-65	67	7.7	1225	115 5.74 43	38 3.13 23	100 4.35 32	7 0.18 1	0	255 4.18 32	362 7.54 58	45 1.27 10	0	0.5	0.53	--	863 793	444	
1N/22W-27A 2 S 10- 6-64	69	8.2	1230	60 2.99 21	83 6.83 49	92 4.00 29	4 0.10 1	0	232 3.80 27	373 7.77 55	88 2.48 18	0.0	0.6	0.67	--	878 815	491	
1N/22W-27B 2 S 2- 6-65	--	7.4	8695	1062 52.99 55	335 27.55 29	343 14.91 16	20 0.51 1	0	215 3.52 4	583 12.14 13	2800 78.96 83	11.0 0.18	0.7	0.84	--	5875 5261	4030	



TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				Mineral constituents in parts per million							
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	Total Evap 180°C at 105°C Computed CaCO <sub>3</sub>			
OXNARD PLAIN HYDRO SUBUNIT				U03A0				SANTA CLARA-CALLEGUAS HYDRO UNIT U0300											
OXNARD HYDRO SUBAREA				U03A1															
1N/22W-27B 2 S 6- 1-65	--	7.6	8200	1102 54.99 54	331 27.22 27	440 19.13 19	8 0.20	0	160 2.62 3	649 13.51 13	3053 86.09 84	0	0.2	0.97	--	6892 5663	4114		
1N/22W-27B 4 S 10-14-64	--	8.2	1000	92 4.59 29	38 3.13 26	93 4.04 34	6 0.15 1	0	197 3.23 27	364 7.58 63	40 1.13 9	0.0	0.2	0.59	--	868 731	386		
2- 9-65	--	8.2	1004	42 2.10 22	38 3.13 33	98 4.26 44	5 0.13 1	0	104 1.70 17	323 6.72 66	60 1.69 17	0.0	0.6	0.67	--	559 618	262		
5- 7-65	--	8.0	1300	119 5.94 39	44 3.62 24	125 5.44 36	7 0.18 1	0	292 4.79 32	396 8.24 55	67 1.89 13	0	0.2	0.50	--	944 902	478		
1N/22W-27H 1 S 6- 1-65	68	8.0	1360	92 4.59 29	75 6.17 39	110 4.78 31	5 0.13 1	0	260 4.26 27	398 8.29 53	115 3.24 21	0	0.6	0.70	--	976 924	538		
1N/22W-27J 2 S 10- 9-64	70	7.5	1950	175 8.73 35	107 8.80 35	175 7.61 30	6 0.15 1	0	242 3.97 16	408 8.49 34	440 12.41 50	0.0	0.4	0.48	--	1540 1431	877		
6- 1-65	--	7.8	2400	164 8.18 31	122 10.03 38	187 8.13 31	7 0.18 1	0	264 4.33 17	434 9.04 35	454 12.80 49	0	0.4	0.56	--	1620 1499	911		
1N/22W-27R 1 S 10-14-64	--	7.5	1300	113 5.64 41	39 3.21 23	112 4.87 35	5 0.13 1	0	299 4.90 36	325 6.77 49	74 2.09 15	0.0	0.6	0.73	--	850 816	443		

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per percent			Mineral constituents in parts per million						
				Calcium Co	Magne-sium Mg	Sodium Na	Potas-sium K	Carbon-ate CO <sub>3</sub>	Bicar-bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo-ride Cl	Ni-trate NO <sub>3</sub>	Fluo-ride F	Boron B	Sili-co SiO <sub>2</sub>	Total hardness as CaCO <sub>3</sub>		
OXNARD PLAIN HYDRO SUBUNIT OXNARD HYDRO SUBAREA				U03A0					SANTA CLARA-CALLEGUAS HYDRO UNIT U0300					U03A1				
1N/22W-27R 1 S 4- 8-65	--	9.4	516	4 0.20 4	7 0.58 12	88 3.83 81	4 0.10 2	14 0.47 10	86 1.41 29	95 1.98 40	36 1.02 21	1 0.02	0.3	0.25	--	289 292	39	
1N/22W-27R 2 S 10- 7-64	67	7.6	970	88 4.39 35	49 4.03 32	95 4.13 33	5 0.13 1	0	269 4.41 35	326 6.79 54	46 1.30 10	1.0 0.02	0.2	0.55	--	804 743	421	
- 4- 8-65	--	9.0	1060	26 1.30 15	10 0.82 9	150 6.52 74	7 0.18 2	8 0.27 3	39 0.64 7	174 3.62 40	163 4.60 50	1 0.02	0.3	0.12	--	570 559	106	
1N/22W-288 1 S 10-22-64	--	6.2	7500	643 32.09 37	263 21.63 25	755 32.83 38	16 0.41	0	34 0.56 1	525 10.93 12	2713 76.51 87	0.0	0.1	0.68	--	4960 4932	2688	
12-22-64	--	4.5	7600	611 30.49 34	272 22.37 25	850 36.96 41	16 0.41	0	0	500 10.41 12	2819 79.50 88	2.0 0.03	0.1	0.98	--	5520 5071	2645	
2- 3-65	--	4.2	6400	585 29.19 35	260 21.38 26	740 32.18 39	18 0.46 1	0	0	389 8.10 10	2649 74.70 90	0.0	0.1	0.53	--	5580 4642	2531	
3-11-65	--	4.9	7400	595 29.69 35	238 19.57 23	790 34.35 41	19 0.49 1	0	6 0.10	415 8.64 10	2628 74.11 89	2 0.03	0.1	0.76	--	5840 4691	2465	
4-15-65	--	4.9	7692	497 24.80 32	228 18.75 24	780 33.91 43	24 0.61 1	0	7 0.11	450 9.37 12	2450 69.09 88	6 0.10	0.8	0.80	--	4570 4440	2179	

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million								Mineral constituents in parts per million					
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	IDS Exp 180°C Exp 105°C Computer CoCO <sub>3</sub>	Total Hardness as CaCO <sub>3</sub>
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																	
OXNARD PLAIN HYDRO SUBUNIT U03A0																	
OXNARD HYDRO SUBAREA U03A1																	
1N/22W-28C 1 S 10-22-64	--	7.2	11000	756 37.72 27	287 23.60 17	1760 76.52 55	21 0.54	0	197 3.23 2	768 15.99 11	4294 121.09 86	0.0	0.1	1.00	--	10580 7984	3068
12-23-64	--	6.8	12400	657 32.78 22	319 26.23 18	2070 90.00 60	23 0.59	0	56 0.92 1	678 14.12 10	4590 129.44 90	0.0	0.1	1.25	--	8560 8366	2953
3-10-65	--	6.6	11200	697 34.78 24	277 22.78 16	1980 86.09 60	26 0.66	0	13 0.21	620 12.91 9	4567 128.79 91	0.0	0.1	0.97	--	9560 8174	2880
4-15-65	--	5.5	12821	537 26.80 20	268 22.04 17	1900 82.61 63	23 0.59	0	15 0.25	658 13.70 10	4200 118.44 89	5 0.08	1.1	1.30	--	8040 7601	2444
1N/22W-28H 2 S 10-23-64	70	7.5	1167	120 5.99 45	43 3.54 26	86 3.74 28	4 0.10 1	0	256 4.20 31	374 7.79 58	49 1.38 10	0.0	0.9	0.68	36	840 839	477
1N/22W-29A 4 S 10-5-64	68	7.4	1040	49 2.45 19	66 5.43 42	113 4.91 38	11 0.28 2	0	177 2.90 22	418 8.70 67	46 1.30 10	0.0	0.2	0.41	--	854 791	394
4-7-65	--	7.8	1214	117 5.84 45	36 2.96 23	93 4.04 31	11 0.28 2	0	247 4.05 31	376 7.83 60	39 1.10 8	1 0.02	0.5	0.43	--	850 795	440
1N/22W-35C 1 S 11-27-64	--	7.6	1182	113 5.64	38 3.13	89 3.87	--	--	294 4.82	318 6.62	48 1.35	--	0.6	0.63	--	797	439

TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reactance value					Mineral constituents in parts per million				
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	TDS Extrapolated as CaCO <sub>3</sub>	
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																	
OXNARD PLAIN HYDRO SUBUNIT U03A0																	
OXNARD HYDRO SUBAREA U03A1																	
1N/22W-35C 1 S 5-14-65	--	7.5	1182	114 5.69	34 2.80	90 3.91	--	--	291 4.77	308 6.41	46 1.30	--	0.5	0.75	--	802 425	
1N/22W-35G 1 S 6- 1-65	--	8.0	802	68 3.39 39	20 1.64 19	82 3.57 41	3 0.08 1	0	346 5.67 67	67 1.39 17	48 1.35 16	0	0.9	0.61	--	556 252 460	
1N/22W-36B 2 S 10-23-64	72	7.8	1048	96 4.79 39	37 3.04 25	98 4.26 35	7 0.18 1	0	271 4.44 36	286 5.95 49	63 1.78 15	4.0 0.06	0.7	0.54	44	760 392 769	
1N/22W-36K 1 S 10-23-64	70	7.6	1940	183 9.13 45	60 4.93 24	143 6.22 30	6 0.15 1	0	272 4.46 22	305 6.35 31	335 9.45 47	3.0 0.05	0.7	0.66	44	1410 704 1214	
1N/22W-36M 1 S 8-25-65	--	7.6	896	77 3.84 40	26 2.14 22	82 3.57 37	4 0.10 1	0	337 5.52 57	135 2.81 29	47 1.33 14	0	0.7	0.61	--	569 299 538	
1N/23W- 1H 1 S 6- 8-65	--	8.1	1156	117 5.84 45	39 3.21 25	88 3.83 30	4 0.10 1	0	274 4.49 35	333 6.93 55	44 1.24 10	0	0.6	0.69	--	828 453 761	
2N/21W-18H 1 S 10-22-64	--	7.6	1682	162 8.08 42	61 5.02 26	138 6.00 31	5 0.13 1	0	336 5.51 29	502 10.45 54	100 2.82 15	27.0 0.44 2	0.8	0.61	--	1210 656 1162	
2N/21W-19A 2 S 11- 4-64	--	7.6	1748	170 8.48 43	67 5.51 28	132 5.74 29	--	--	304 4.98 25	600 12.49 63	81 2.28 11	9.0 0.15 1	0.6	0.75	--	1307 700 1210	



ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reactance value				Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	Total hardness as CaCO <sub>3</sub>
Date sampled				Ca	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>	Computed
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																
OXNARD PLAIN HYDRO SUBUNIT U03AU																
OXNARD HYDRO SUBAREA U03AI																
2N/21W-19A 2 S 5-13-65	--	7.4	1838	177 8.83 44	61 5.02 25	140 6.09 31	--	--	322 5.28 26	535 11.14 55	122 3.44 17	16 0.26 1	0.7	0.71	--	693 1392 1211
2N/21W-20F 1 S 2-19-65	68	8.0	1060	79 3.94 32	44 3.62 29	110 4.78 38	3 0.08 1	0	334 5.47 45	223 4.64 38	67 1.89 15	17 0.27 2	0.2	0.45	--	378 724 708
2N/21W-20F 2 S 2-19-65	69	7.9	1220	83 4.14 29	50 4.11 29	137 5.96 42	5 0.13 1	0	292 4.79 33	373 7.77 54	64 1.80 13	2 0.03	0.2	0.57	--	413 904 858
2N/22W-12D 1 S 5-20-65	--	7.5	1692	152 7.58 39	57 4.69 24	162 7.04 36	--	--	316 5.18 27	583 12.14 63	69 1.95 10	3 0.05	0.5	0.50	--	614 1265 1182
2N/22W-12G 1 S 10-20-64	--	7.6	2193	256 12.77 45	92 7.57 27	180 7.83 28	7 0.18 1	0	362 5.93 21	921 19.18 68	112 3.16 11	5.0 0.08	1.3	0.84	31	1018 1870 1784
2N/22W-14P 2 S 12-21-64	--	7.5	1698	168 8.38 44	57 4.69 25	136 5.91 31	--	--	352 5.77 30	533 11.10 58	65 1.83 10	24.0 0.39 2	0.7	0.79	--	654 1305 1157
3-24-65	--	7.7	1680	167 8.33 44	64 5.26 28	124 5.39 28	--	--	345 5.65 30	535 11.14 58	66 1.86 10	25 0.40 2	0.8	0.64	--	680 1270 1152
6-16-65	--	7.7	1293	109 5.44 40	44 3.62 26	107 4.65 34	--	--	257 4.21 31	388 8.08 59	46 1.30 9	12 0.19 1	0.7	0.61	--	453 953 834



TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million reactance value					Mineral constituents in parts per million				
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	TDS Evap 100°C as CaCO <sub>3</sub>	Total hardness Evap 100°C Computed CaCO <sub>3</sub>	
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																		
OXNARD PLAIN HYDRO SUBUNIT U03A0																		
OXNARD HYDRO SUBAREA U03A1																		
2N/22W-15Q 3 S 10-20-64	--	7.6	1692	172 8.58 43	60 4.93 25	143 6.22 31	6 0.15 1	0	319 5.23 26	570 11.87 60	74 2.09 11	34.0 0.55 3	0.9	0.62	34	1320 1251	676	
2N/22W-16K 1 S 11- 4-64	--	7.9	1403	121 6.04 40	40 3.29 22	132 5.74 38	--	--	255 4.18 28	444 9.24 62	53 1.49 10	5.0 0.08 1	0.7	0.75	--	995 922	467	
5-13-65	--	7.4	1402	111 5.54 37	44 3.62 24	132 5.74 39	--	--	256 4.20 28	446 9.29 61	54 1.52 10	6 0.10 1	0.7	0.55	--	1007 920	458	
2N/22W-17Q 4 S 4-20-65	--	8.0	1700	161 8.03 48	38 3.13 19	125 5.44 32	6 0.15 1	0	265 4.34 26	469 9.76 59	85 2.40 15	0.0	0.2	0.55	--	1120 1015	558	
2N/22W-20Q 1 S 11- 4-64	--	7.8	1661	171 8.53 46	54 4.44 24	132 5.74 31	--	--	270 4.43 24	555 11.56 62	87 2.45 13	19.0 0.31 2	0.6	0.66	--	1250 1152	649	
5-13-65	--	7.5	1652	160 7.98 45	49 4.03 23	132 5.74 32	--	--	270 4.43 25	512 10.66 60	83 2.34 13	19 0.31 2	0.6	0.71	--	1257 1089	601	
2N/22W-21D 3 S 10-20-64	--	7.8	2016	222 11.08 45	90 7.40 30	138 6.00 24	5 0.13 1	0	240 3.93 16	761 15.84 65	148 4.17 17	37.0 0.60 2	0.9	0.68	30	1630 1551	925	
2N/22W-23B 1 S 12-14-64	--	7.3	1777	172 8.58 43	66 5.43 27	132 5.74 29	--	--	284 4.65 24	584 12.16 62	76 2.14 11	45.0 0.73 4	0.8	0.71	--	1370 1216	701	

TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					Mineral constituents in parts per million							
				Calcium Mg	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	Total Hardness as CaCO <sub>3</sub>
OXNARD PLAIN HYDRO SUBUNIT U03A0				SANTA CLARA-CALLEGUAS HYDRO UNIT U0300												
OXNARD HYDRO SUBAREA U03A1																
2N/22W-23B 2 S 12-14-64	--	7.5	1643	150 7.49 41	64 5.26 29	124 5.39 30	--	--	305 5.00 27	521 10.85 60	65 1.83 10	32.0 0.52 3	0.7	0.76	--	638 1242 1107
2N/22W-23C 2 S 12-14-64	--	7.6	1588	154 7.68 43	56 4.61 26	124 5.39 30	--	--	265 4.34 25	548 11.41 65	64 1.80 10	7.0 0.11 1	0.8	0.93	--	615 1176 1085
2N/22W-23C 3 S 12-14-64	--	7.5	1428	141 7.04	43 3.54	118 5.13	--	--	279 4.57	454 9.45	57 1.61	--	0.6	0.60	--	529 1167
2N/22W-23G 1 S 12-14-64	--	7.4	1650	174 8.68 46	58 4.77 25	124 5.39 29	--	--	285 4.67 25	564 11.74 62	72 2.03 11	34.0 0.55 3	0.8	0.85	--	673 1327 1168
2N/22W-23G 2 S 12-14-64	--	7.4	1650	154 7.68 41	64 5.26 28	128 5.57 30	--	--	293 4.80 26	547 11.39 61	72 2.03 11	27.0 0.44 2	0.8	0.77	--	648 1287 1138
2N/22W-23J 1 S 10-21-64	--	8.1	1716	187 9.33 46	68 5.59 27	125 5.44 27	5 0.13 1	0	300 4.92 24	613 12.76 63	75 2.12 10	35.0 0.56 3	1.0	0.78	34	747 1413 1291
2N/22W-23K 4 S 12-14-64	--	7.7	1292	127 6.34	36 2.96	107 4.65	--	--	262 4.29	391 8.14	48 1.35	--	0.5	0.56	--	465 910
2N/22W-23Q 1 S 10-27-64	--	8.0	1590	191 9.53 46	68 5.59 27	125 5.44 26	5 0.13 1	0	306 5.02 25	618 12.87 63	76 2.14 10	26.0 0.42 2	0.4	0.88	--	757 1450 1261

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million reactance value				Mineral constituents in parts per million				
				Calcium	Magne- sium	Sodium	Potas- sium	Carbon- ate	Bicar- bonate	Sulfate	Chlo- ride	Ni- trate	Fluo- ride	Boro- n	Sili- co	Total hardness as CaCO <sub>3</sub>
Date sampled				Co	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>	as CaCO <sub>3</sub>
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																
OXNARD PLAIN HYDRO SUBUNIT U03A0																
OXNARD HYDRO SUBAREA U03A1																
2N/22W-25A 4 S 8-19-65	--	7.7	1808	193 9.63 44	72 5.92 27	140 6.09 28	6 0.15 1	0	293 4.80 22	716 14.91 68	70 1.97 9	6 0.10	1.1	0.88	--	778
2N/22W-26F99 S 10- 9-64	--	7.6	1568	160 7.98 46	50 4.11 24	118 5.13 30	--	--	276 4.52 27	499 10.39 61	65 1.83 11	17.0 0.27 2	0.6	0.75	--	605
11-23-64	--	7.5	1482	155 7.73 47	45 3.70 23	112 4.87 30	--	--	279 4.57 28	468 9.74 60	65 1.83 11	12.0 0.19 1	0.6	0.68	--	572
12-28-64	--	7.3	1452	145 7.24 45	48 3.95 24	116 5.04 31	--	--	277 4.54 28	475 9.89 61	59 1.66 10	10.0 0.16 1	0.7	0.68	--	560
2N/22W-27L 1 S 10-21-64	--	8.1	1500	169 8.43 45	63 5.18 28	115 5.00 27	5 0.13 1	0	361 5.92 31	512 10.66 56	75 2.12 11	15.0 0.24 1	0.6	0.84	--	681
2N/22W-27M 2 S 10-22-64	--	7.7	1625	176 8.78 46	68 5.59 29	106 4.61 24	5 0.13 1	0	353 5.79 31	508 10.58 56	72 2.03 11	27.0 0.44 2	0.9	0.65	--	719
2N/22W-31C 2 S 8-17-65	64	7.6	1202	122 6.09 46	42 3.45 26	83 3.61 27	4 0.10 1	0	244 4.00 30	384 7.99 60	43 1.21 9	2 0.03	0.8	0.65	--	477
2N/23W-13F 1 S 10-26-64	70	7.3	1550	106 5.29 29	61 5.02 28	172 7.48 42	6 0.15 1	0	300 4.92 28	498 10.37 59	82 2.31 13	1.0 0.02	0.2	0.68	--	516
																1074

TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent reactance value					Mineral constituents in parts per million				
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Baron B	Sili- co SiO <sub>2</sub>	Total Hardness as CaCO <sub>3</sub>		
OXNARD PLAIN HYDRO SUBUNIT				SANTA CLARA-CALLEGUAS HYDRO UNIT U0300														
OXNARD HYDRO SUBAREA				U03A1														
2N/23W-13F 1 S 9-28-65	--	7.8	1572	131 6.54 38	45 3.70 21	160 6.96 40	5 0.13 1	0	310 5.08 29	490 10.20 58	75 2.12 12	4 0.06	0.7	0.62	--	1100 1064	512	
2N/23W-14M 1 S 10-22-64	--	7.7	1524	155 7.73 43	49 4.03 22	144 6.26 34	5 0.13 1	0	359 5.88 32	490 10.20 56	74 2.09 11	2.0 0.03	0.7	0.60	40	1145 588	588	
2N/23W-23C 1 S 12-14-64	--	7.5	1620	161 8.03 45	52 4.28 24	128 5.57 31	--	--	310 5.08 29	512 10.66 60	60 1.69 10	22.0 0.35 2	0.7	0.78	--	1137 1255 1089	616	
2N/23W-23G 1 S 8- 6-65	--	8.1	1278	125 6.24 43	39 3.21 22	113 4.91 34	5 0.13 1	0	261 4.28 31	394 8.20 59	52 1.47 11	2 0.03	0.5	0.44	--	958 859	473	
2N/23W-25Q 1 S 10-22-64	--	7.6	1368	128 6.39 42	40 3.29 22	125 5.44 36	4 0.10 1	0	273 4.47 30	439 9.14 61	52 1.47 10	1.0 0.02	0.7	0.46	--	970 924	484	
2N/23W-35B 1 S 10-21-64	--	7.8	1105	92 4.59 32	48 3.95 28	128 5.57 39	4 0.10 1	0	191 3.13 22	454 9.45 66	62 1.75 12	0.0	2.4	0.60	--	952 885	427	
2N/23W-36A 1 S 11-25-64	--	7.6	1376	128 6.39	37 3.04	124 5.39	--	--	264 4.33	425 8.85	57 1.61	--	0.6	0.57	--	985	472	



TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				million per million				Mineral constituents in parts per million			
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Baron B	Sili- co SiO <sub>2</sub>	T.D.S. Evap 180°C or Evap 105°C Computed CaCO <sub>3</sub>			
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																			
OXNARD PLAIN HYDRO SUBUNIT U03A0																			
PLEASANT VALLEY HYDRO SUBAREA U03A2																			
1N/21W- 2J 3 S 8-25-65	70	7.5	2628	268 13.37 44	92 7.57 25	208 9.04 30	5 0.13	0	332 5.44 18	765 15.93 53	294 8.29 27	33 0.53 2	0.8	0.84	--	2070 1830	1048		
1N/21W- 3A 2 S 8-19-65	76	7.6	2100	71 3.54 16	47 3.87 17	340 14.78 66	9 0.23 1	0	429 7.03 31	386 8.04 36	256 7.22 32	2 0.03	0.7	0.92	--	1440 1324	371		
1N/21W- 3L 1 S 10-16-64	72	7.6	982	95 4.74 45	28 2.30 22	78 3.39 32	3 0.08 1	0	243 3.98 38	235 4.89 47	53 1.49 14	3.0 0.05	0.5	0.56	40	685 655	352		
11-18-64	--	7.4	1006	97 4.84 44	31 2.55 23	84 3.65 33	--	--	233 3.82 35	254 5.29 49	61 1.72 16	0.0	0.3	0.30	--	677 642	370		
1N/21W- 9F 1 S 8-25-65	--	7.6	778	57 2.84 35	20 1.64 20	82 3.57 44	4 0.10 1	0	281 4.61 56	123 2.56 31	39 1.10 13	0	0.4	0.28	--	500 464	224		
1N/21W-15Q 1 S 10-16-64	--	7.7	1222	77 3.84 29	43 3.54 27	129 5.61 43	4 0.10 1	0	316 5.18 40	199 4.14 32	129 3.64 28	1.0 0.02	0.4	0.36	52	810 790	369		
1N/21W-15Q 2 S 5- 6-65	66	7.7	2300	244 12.18 44	59 4.85 18	235 10.22 37	6 0.15 1	0	392 6.42 24	567 11.80 44	309 8.71 32	0.0	0.2	0.40	--	1730 1613	852		
1N/21W-21H 1 S 2- 6-65	66	7.8	1000	109 5.44 41	47 3.87 29	88 3.83 29	5 0.13 1	0	257 4.21 31	381 7.93 59	46 1.30 10	0.0	0.6	0.71	--	872 804	466		



TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per percent					Mineral constituents in parts per million					Total Hardness as CaCO <sub>3</sub>
				Calcium Co	Magne-sium Mg	Sodium Na	Potas-sium K	Carbon-ate CO <sub>3</sub>	Bicar-bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo-ride Cl	Ni-trate NO <sub>3</sub>	Fluo-ride F	Boron B	Sili-co SiO <sub>2</sub>	IO <sub>3</sub> -Exch. Evap. 180°C Exp. 105°C Computed			
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																			
OXNARD PLAIN HYDRO SUBUNIT U03A0				PLEASANT VALLEY HYDRO SUBAREA U03A2															
1N/21W-26K 1 S 10-15-64	70	7.3	2000	171 8.53 37	90 7.40 32	163 7.09 31	1 0.03	0	415 6.80 30	334 6.95 31	300 8.46 37	32.0 0.52 2	0.1	0.10	--	1492 1295	797		
1N/21W-27F 2 S 8-19-65	--	7.8	1437	71 3.54 23	54 4.44 29	165 7.17 47	5 0.13 1	0	320 5.24 34	275 5.73 37	158 4.46 29	1 0.02	0.6	0.42	--	1010 887	399		
2N/20W-30C 1 S 10- 9-64	--	7.7	2410	156 7.78 26	90 7.40 25	330 14.35 48	6 0.15 1	--	325 5.33 18	842 17.53 58	255 7.19 24	0.0	0.4	1.00	--	1970 1840	760		
2N/20W-30Q 1 S 10- 8-64	--	8.0	1410	103 5.14 34	72 5.92 39	94 4.09 27	1 0.03	--	430 7.05 46	33 0.69 4	272 7.67 50	0.0	0.1	0.35	--	976 787	553		
2N/21W-23K 4 S 12-21-64	68	8.0	1260	125 6.24 44	43 3.54 25	102 4.43 31	4 0.10 1	0	263 4.31 30	422 8.79 61	45 1.27 9	0.0	0.4	0.68	--	922 871	489		
2N/21W-23R 2 S 12-15-64	--	7.8	1370	142 7.09 48	39 3.21 22	100 4.35 29	4 0.10	0	243 3.98 27	313 6.52 45	100 2.82 19	80.0 1.29 9	0.6	0.40	--	985 898	515		
2N/21W-23R 3 S 10- 9-64	--	8.0	1160	91 4.54 34	43 3.54 26	123 5.35 40	4 0.10 1	--	260 4.26 31	330 6.87 51	85 2.40 18	0.0	0.2	0.35	--	828 804	404		
2N/21W-33A 1 S 10-21-64	--	7.6	2050	277 13.82 44	92 7.57 24	228 9.91 32	3 0.08	0	251 4.11 13	1023 21.30 68	200 5.64 18	3.0 0.05	0.4	0.72	--	2326 1951	1070		

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million reactance value				Mineral constituents in parts per million					
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Fluoride	Boron	Silica	Total hardness at 100°C	Total hardness at 100°C as CaCO <sub>3</sub>	
Date sampled				Ca	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	F	B	SiO <sub>2</sub>	Evap 180°C	Evap 100°C	Computed CaCO <sub>3</sub>
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																	
OXNARD PLAIN HYDRO SUBUNIT U03A0																	
PLEASANT VALLEY HYDRO SUBAREA U03A2																	
2N/21W-36N 4 S	--	7.8	1750	148	77	172	5	--	298	520	192	0.2	0.50	--	1374	687	
10- 8-64				7.39	6.33	7.48	0.13		4.88	10.83	5.41				1263		
				35	30	35	1		23	51	26						

TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million									
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlor- ide Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Baron B	Sili- co SiO <sub>2</sub>	Total Evap 105°C Hardness Evap 105°C Computed CaCO <sub>3</sub>			
SANTA PAULA HYDRO SUBUNIT U03B0				SANTA CLARA-CALLEGUAS HYDRO UNIT U0300															
SANTA PAULA HYDRO SUBAREA U03B1																			
2N/22W-1M 1 S 10-20-64	--	7.8	1238	132 6.59 47	45 3.70 26	84 3.65 26	0.10 1	4	0	209 3.43 24	436 9.08 64	60 1.69 12	0.6	0.37	36	900 515			
2N/22W-3M 3 S 10-20-64	72	7.6	1340	144 7.19 46	45 3.70 24	105 4.57 29	0.10 1	4	0	323 5.29 34	420 8.74 56	59 1.66 11	0.7	0.50	38	975 545			
3N/21W-9R 3 S 10-21-64	--	7.8	1135	130 6.49 51	30 2.47 20	83 3.61 29	3 1	3	0	293 4.80 38	327 6.81 54	38 1.07 8	0.8	0.42	37	823 448			
3N/21W-12D 1 S 10-28-64	--	7.7	3300	439 21.91 43	141 11.60 23	390 16.96 33	8 0.20	8	0	349 5.72 11	1716 35.73 70	337 9.50 19	0.4	0.67	--	3716 1677			
3N/21W-15C 2 S 10-20-64	--	7.3	1616	204 10.18 54	54 4.44 23	97 4.22 22	3 0.08	3	0	359 5.88 31	514 10.70 56	69 1.95 10	0.8	0.54	34	1255 732			
3N/21W-16K 2 S 10-21-64	--	7.7	2026	228 11.38 47	72 5.92 24	158 6.87 28	5 0.13 1	5	0	357 5.85 24	722 15.03 62	113 3.19 13	0.9	0.80	36	1615 866			
3N/21W-21B 1 S 11- 9-64	--	7.3	2080	198 9.88	72 5.92	187 8.13	--	--	--	388 6.36	674 14.03	118 3.33	0.7	1.34	--	1515 791			
5-12-65	--	7.4	2073	194 9.68 42	66 5.43 23	186 8.09 35	--	--	--	392 6.42 28	633 13.18 57	123 3.47 15	0.7	0.91	--	1572 1398			

TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						parts per million equivalents per million reactance value						Mineral constituents in parts per million					
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	Total dissolved solids Hardness CaCO <sub>3</sub>					
SANTA PAULA HYDRO SUBUNIT U0380																					
SANTA PAULA HYDRO SUBAREA U0381																					
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																					
3N/21W-21E 1 S 10-15-64	--	7.6	2150	186 9.28 32	112 9.21 32	240 10.44 36	0.15 1	6	0	465 7.62 27	834 17.36 61	129 3.64 13	0.0	1.53	--	1992 1738	925				
3N/21W-29B 1 S 11- 3-64	--	7.8	2403	215 10.73	87 7.15	230 10.00	--	--	--	498 8.16	691 14.39	184 5.19	--	1.45	--	1757	895				
5-12-65	--	7.4	2233	188 9.38	60 4.93	230 10.00	--	--	--	510 8.36	499 10.39	202 5.70	--	1.29	--	1536	716				
3N/21W-31E 1 S 11- 3-64	--	7.9	2383	271 13.52	76 6.25	211 9.17	--	--	--	351 5.75	965 20.09	100 2.82	--	1.13	--	1965	989				
5-12-65	--	7.3	2587	281 14.02	90 7.40	220 9.57	--	--	--	381 6.24	1044 21.74	105 2.96	--	0.72	--	2133	1072				
3N/22W-11H 1 S 10-20-64	--	7.8	3367	227 11.33 27	129 10.61 26	440 19.13 46	8 0.20	0	589 9.65 23	1137 23.67 57	280 7.90 19	17.0 0.27 1	1.5	0.94	31	2710 2561	1098				
3N/22W-23F 2 S 11- 2-64	--	7.9	2034	190 9.48 39	70 5.76 24	204 8.87 36	10 0.26 1	0	538 8.82 37	603 12.55 52	94 2.65 11	7 0.11	0.6	0.60	--	1570 1444	763				

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per percent					Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	Total Evap 180°C Evap 105°C as Computed CaCO <sub>3</sub>		
SANTA PAULA HYDRO SUBUNIT SISAR HYDRO SUBAREA				U0380					SANTA CLARA-CALLEGUAS HYDRO UNIT U0300					U0382				
4N/21W-18C 1 S 10-28-64	--	7.8	710	104 5.19 57	32 2.63 29	28 1.22 13	2 0.05 1	0	245 4.02 43	222 4.62 49	25 0.71 8	0.0	0.2	0.06	--	558 534	391	



**TABLE E-1**  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent					Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	TDS Evap 180°C Evap 105°C Computed	Total hardness as CaCO <sub>3</sub>	
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																		
SESPE HYDRO SUBUNIT U03C0																		
FILLMORE HYDRO SUBAREA U03C1																		
3N/20W- 3N 2 S 11- 3-64	--	7.8	1507	156 7.78 45	66 5.43 31	95 4.13 24	--	--	292 4.79 28	500 10.41 61	49 1.38 8	38.0 0.61 4	0.8	0.81	--	661 1132 1049		
5-14-65	--	7.3	1370	138 6.89 46	52 4.28 29	86 3.74 25	--	--	274 4.49 30	411 8.56 58	43 1.21 8	37 0.60 4	0.8	0.75	--	559 1036 903		
3N/20W- 5C 2 S 10-12-64	--	8.2	1260	153 7.63 52	51 4.19 29	63 2.74 19	2 0.05	0	327 5.36 36	373 7.77 52	31 0.87 6	51.0 0.82 6	0.4	0.22	--	591 1022 885		
3N/20W- 5D 1 S 10-12-64	--	7.8	1030	140 6.99 58	40 3.29 27	39 1.70 14	2 0.05	0	336 5.51 46	239 4.98 42	28 0.79 7	41.0 0.66 6	0.2	0.19	--	514 782 695		
3N/20W- 9F 1 S 10-15-64	--	7.4	3050	431 21.51 49	152 12.50 28	225 9.78 22	9 0.23 1	0	4 0.07 16	1557 32.42 86	142 4.00 11	71.0 1.15 3	1.0	1.69	--	1702 3142 2592		
9-30-65	--	7.6	3425	392 19.56 44	162 13.32 30	270 11.74 26	9 0.23 1	0	431 7.06 16	1571 32.71 73	145 4.09 9	70 1.13 2	1.4	1.60	--	1645 2990 2834		
3N/21W-12C 1 S 10-15-64	--	7.6	1950	250 12.48 39	148 12.17 38	160 6.96 22	3 0.08	0	522 8.56 27	908 18.90 59	147 4.15 13	36.0 0.58 2	0.8	0.90	--	1233 2214 1910		
3N/21W-12D 2 S 10-15-64	--	7.6	3150	389 19.41 44	135 11.10 25	320 13.91 31	7 0.18	0	360 5.90 13	1415 29.46 67	301 8.49 19	0.0	0.8	0.62	--	1527 2976 2745		

TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million					Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	Total hardness as CaCO <sub>3</sub>		
SESPE HYDRO SUBUNIT U03C0																		
FILLMORE HYDRO SUBAREA U03C1																		
3N/21W-12H 1 S 11- 5-64	--	7.8	1157	114 5.69 45	40 3.29 26	82 3.57 28	--	--	256 4.20 34	337 7.02 57	37 1.04 8	8.0 0.13 1	0.9	0.81	--	830 746	449	
5-12-65	--	7.5	1202	111 5.54 44	42 3.45 27	85 3.70 29	--	--	255 4.18 32	357 7.43 58	39 1.10 9	12 0.19 1	0.9	0.67	--	877 773	450	
4N/19W-33D 4 S 10-30-64	58	7.6	1305	139 6.94 44	62 5.10 32	84 3.65 23	4 0.10 1	0	264 4.33 28	485 10.10 66	27 0.76 5	11.0 0.18 1	1.1	0.72	33	1010 977	602	
12- 1-64	--	7.8	1523	167 8.33 46	70 5.76 32	93 4.04 22	5 0.13 1	0	279 4.57 26	584 12.16 68	30 0.85 5	20.0 0.32 2	1.0	0.78	--	1221 1108	705	
4N/20W-12Q 1 S 10-12-64	--	8.0	1100	89 4.44 38	35 2.88 24	101 4.39 37	3 0.08 1	0	189 3.10 27	255 5.31 45	112 3.16 27	7.0 0.11 1	1.0	2.55	--	770 698	366	
4N/20W-23N 1 S 10-12-64	--	8.1	690	79 3.94 54	18 1.48 20	44 1.91 26	1 0.03 3	0	218 3.57 49	111 2.31 32	34 0.96 13	28.0 0.45 6	0.4	0.28	--	490 423	271	
4N/20W-23Q 1 S 10-12-64	--	8.0	1200	144 7.19 53	51 4.19 31	50 2.17 16	3 0.08 1	0	266 4.36 32	298 6.20 45	82 2.31 17	56.0 0.90 7	0.4	0.78	--	986 816	569	
4N/20W-24D 1 S 10-27-64	--	7.0	1340	127 6.34 41	67 5.51 36	77 3.35 22	3 0.08 1	0	329 5.39 36	294 6.12 41	101 2.85 19	45.0 0.73 5	0.6	1.20	--	954 878	593	

**TABLE E-1**  
**ANALYSES OF GROUND WATER**  
**LOS ANGELES DRAINAGE PROVINCE (U)**

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per percent					Mineral constituents in parts per million					Total hardness as CaCO <sub>3</sub>
				Calcium M g	Magne- sium M g	Sodium	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	Iron	IO <sub>3</sub> Evap 180°C	Evap 105°C	
Date sampled				Ca	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>	Fe	Cu		
SESPE HYDRO SUBUNIT U03C0 U03C1 SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																			
FILLMORE HYDRO SUBAREA																			
4N/20W-25C 1 S 12- 9-64	--	7.3	1544	151 7.53 49	53 4.36 29	77 3.35 22	--	--	321 5.26 34	389 8.10 52	61 1.72 11	30.0 0.48 3	0.8	0.71	--	978 920		595	
5-12-65	--	7.4	1334	142 7.09 49	52 4.28 29	74 3.22 22	--	--	302 4.95 33	369 7.68 52	61 1.72 12	27 0.44 3	0.8	0.78	--	972 875		569	
4N/20W-25D 1 S 10-27-64	71	7.9	1074	108 5.39 47	34 2.80 25	71 3.09 27	3	0.08	0 2.66 24	320 6.66 59	63 1.78 16	11.0 0.18 2	1.0	1.25	19	753 711		410	
9-30-65	74	7.8	1205	135 6.74 52	35 2.88 22	76 3.30 25	3	0.08	0 4.00 31	327 6.81 52	67 1.89 15	18 0.29 2	1.0	1.30	--	780 783		481	
4N/20W-25D 2 S 8-26-65	--	7.3	2188	270 13.47 48	117 9.62 34	112 4.87 17	4	0.10	0 7.44 27	773 16.09 57	98 2.76 10	106 1.71 6	1.2	1.70	--	1900 1706		1155	
4N/20W-25J 1 S 10-27-64	--	7.4	2012	254 12.67 50	95 7.81 31	108 4.70 19	5	0.13	0 8.54 34	637 13.26 53	86 2.43 10	53.0 0.85 3	1.0	0.78	39	1635 1535		1025	
4N/20W-26D 1 S 10-12-64	--	8.1	890	90 4.49 46	36 2.96 30	52 2.26 23	2	0.05	0 3.59 37	221 4.60 47	39 1.10 11	32.0 0.52 5	0.4	0.47	--	660 580		373	
4N/20W-33F 1 S 8-18-65	67	7.3	1406	184 9.18 55	53 4.36 26	72 3.13 19	2	0.05	0 5.20 31	432 8.99 54	39 1.10 7	88 1.42 8	0.6	0.12	--	1150 1027		678	

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	I.D.S. Evap 180°C Evap 250°C as Computed	Total hardness as CaCO <sub>3</sub>	
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																		
SESPE HYDRO SUBUNIT U03C0				U03C1														
4N/20W-34R 1 S 11- 4-64	--	7.5	1327	134	45	89	--	--	292	366	54	20.0	0.7	1.07	--	520		
				6.69 47	3.70 26	3.87 27			4.79 34	7.62 53	1.52 11	0.32 2				955 853		
5-12-65	--	7.3	1412*	146	49	93	--	--	317	379	65	42	0.7	0.76	--	566		
				7.29 47	4.03 26	4.04 26			5.20 33	7.89 51	1.83 12	0.68 4				1048 931		
4N/20W-36P 2 S 10-15-64	--	7.7	1140	126	45	107	7	0	281	431	35	8.0	1.0	0.67	--	500		
				6.29 42	3.70 25	4.65 31	0.18 1		4.61 31	8.97 61	0.99 7	0.13 1				954 899		
4N/20W-36Q 1 S 9-30-65	72	7.8	1285	122	49	96	4	0	277	412	38	7	0.9	0.50	--	506		
				6.09 42	4.03 28	4.17 29	0.10 1		4.54 32	8.58 60	1.07 7	0.11 1				870 866		
SESPE HYDRO SUBAREA U03C2																		
6N/22W-26Q 1 S 6-21-65	--	8.0	658	80	10	55	2	5	250	125	12	2.2	0.4	0.53	--	241		
				3.99 55	0.82 11	2.39 33	0.05 1	0.17 2	4.10 57	2.60 36	0.34 5	0.04 1				368 415		
6N/23W- 6K 1 S 6-21-65	--	8.2	1275	116	12	185	3	8	354	394	17	1.8	0.2	0.53	--	339		
				5.79 39	0.99 7	8.04 54	0.08 1	0.27 2	5.80 39	8.20 55	0.48 3	0.03				760 912		
6N/23W-18M 1 S 3- 3-65	--	7.9	2160	273	60	235	4	0	477	824	146	2	0.2	0.57	--	928		
				13.62 47	4.93 17	10.22 35	0.10		7.82 27	17.16 59	4.12 14	0.03				1850 1779		

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million reactance value					Mineral constituents in parts per million							
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	TDS Evap residue at 100°C Computed	Total hardness as CaCO <sub>3</sub>				
SESPE HYDRO SUBUNIT				SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																	
SESPE HYDRO SUBAREA				U03C0																	
				U03C2																	
6N/23W-18D 1 S 6-21-65	--	8.0	2296	215 10.73 48	22 1.81 8	220 9.57 43	3 0.08	0	373 6.11 27	767 15.97 71	18 0.51 2	0.9 0.01	0.7	0.80	--	1440 1431	628				



ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million								
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	Total Hardness as CaCO <sub>3</sub>		
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																		
PIRU HYDRO SUBUNIT				U0300														
PIRU HYDRO SUBAREA				U03D1														
4N/18W-19R 1 S 11-3-64	--	7.9	1640	171 8.53 45	67 5.51 29	114 4.96 26	--	--	284 4.65 25	600 12.49 66	48 1.35 7	24.0 0.39 2	0.9	1.51	--	703 1262 1166		
5-14-65	--	7.5	1510	152 7.58 45	55 4.52 27	108 4.70 28	--	--	279 4.57 27	530 11.03 65	43 1.21 7	16 0.26 2	0.9	1.40	--	605 1205 1043		
4N/18W-27B 1 S 11-19-64	--	7.7	3408	331 16.52 37	161 13.24 30	336 14.61 33	8 0.20	0	391 6.41 14	1569 32.67 74	148 4.17 9	71.0 1.15 3	1.6	1.26	--	3107 2819 1489		
4N/18W-28C 2 S 8-26-65	62	7.6	3026	327 16.32 42	147 12.09 31	240 10.44 27	7 0.18	0	410 6.72 17	1338 27.86 71	132 3.72 10	49 0.79 2	1.1	0.92	--	2730 2444 1422		
4N/18W-31D 2 S 8-26-65	70	7.5	1565	167 8.33 44	83 6.83 36	87 3.78 20	5 0.13 1	0	268 4.39 23	656 13.66 71	34 0.96 5	17 0.27 1	1.4	0.84	--	1335 1183 759		
4N/19W-23AS1 S 10-21-64	--	7.8	3200	261 13.02 27	238 19.57 41	356 15.48 32	6 0.15	0	841 13.78 29	1599 33.29 70	9 0.25 1	0.0 0.0	0.4	0.86	--	3136 2884 1631		
4N/19W-23AS2 S 10-22-64	--	7.0	3500	489 24.40 41	257 21.14 35	330 14.35 24	5 0.13	0	800 13.11 22	2053 42.74 70	181 5.10 8	0.0 0.0	0.4	0.83	--	3800 3710 2279		
4N/19W-23B 1 S 10-21-64	76	7.9	5100	24 1.20 2	7 0.58 1	1750 76.09 97	18 0.46 1	0	4442 72.80 92	0	216 6.09 8	0.0 0.0	0.1	4.05	--	5110 4203 89		

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fuo- ride F	Boron B	Sili- co SiO <sub>2</sub>	Total Hardness Equiv. 105°C Computed CaCO <sub>3</sub>	
PIRU HYDRO SUBUNIT																	
U03D0				SANTA CLARA-CALLEGUAS HYDRO UNIT U0300													
PIRU HYDRO SUBAREA				U03D1													
4N/19W-25C 2 S 12- 1-64	--	7.7	1863	209 10.43 45	90 7.40 32	116 5.04 22	5 0.13 1	0	313 5.13 22	767 15.97 70	47 1.33 6	24.0 0.39 2	1.4	1.06	--	1523 1414	892
4N/19W-25E 2 S 10-23-64	62	7.4	1850	160 7.98 32	124 10.20 41	150 6.52 26	5 0.13 1	0	348 5.70 23	821 17.09 69	55 1.55 6	17.0 0.27 1	0.8	0.93	--	1622 1505	910
4N/19W-25L 5 S 10-23-64	64	7.6	2300	269 13.42 44	125 10.28 33	160 6.96 23	6 0.15	0	421 6.90 23	984 20.49 68	52 1.47 5	84.0 1.35 4	0.4	1.38	--	2036 1889	1186
4N/19W-25M 2 S 10-23-64	62	8.0	1550	165 8.23 43	75 6.17 33	102 4.43 23	6 0.15 1	0	245 4.02 21	615 12.80 68	52 1.47 8	33.0 0.53 3	0.6	0.95	--	1014 1170	721
11- 3-64	--	8.0	1848	196 9.78 46	84 6.91 33	100 4.35 21	--	--	255 4.18 20	684 14.24 68	56 1.58 8	59.0 0.95 5	0.9	1.49	--	835 1432 1307	835
5-12-65	--	7.6	1573	153 7.63 41	69 5.67 31	121 5.26 28	--	--	237 3.88 22	562 11.70 66	50 1.41 8	38 0.61 3	0.9	0.90	--	666 1248 1111	666
4N/19W-26H 1 S 10-23-64	68	7.8	1360	110 5.49 32	81 6.66 39	110 4.78 28	4 0.10 1	0	262 4.29 25	546 11.37 67	43 1.21 7	6.0 0.10 1	0.6	0.95	--	1102 1030	608
4N/19W-26J 1 S 10-23-64	--	7.7	2450	308 15.37 45	111 9.13 27	220 9.57 28	5 0.13	0	581 9.52 28	1033 21.51 64	52 1.47 4	71.0 1.15 3	0.2	0.50	--	2374 2086	1226

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reactivity value				Mineral constituents in parts per million							
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	TDS Evap 180°C Evap 105°C Computed CaCO <sub>3</sub>			
PIRU HYDRO SUBUNIT				U0300				SANTA CLARA-CALLEGUAS HYDRO UNIT U0300											
PIRU HYDRO SUBAREA				U03D1															
4N/19W-26J 3 S 10-23-64	60	7.9	1900	207 10.33 43	103 8.47 35	120 5.22 22	0.13 0.13 1	5	0	287 4.70 20	795 16.55 70	53 1.49 6	62.0 1.00 4	0.6	0.90	--	1590 1486	941	
4N/19W-26P 2 S 10-23-64	62	7.7	1900	92 4.59 18	164 13.49 54	157 6.83 27	7 0.18 1	0	448 7.34 30	717 14.93 60	57 1.61 6	58.0 0.94 4	0.6	1.07	--	1720 1474	905		
4N/19W-26Q 1 S 10-23-64	66	7.9	2250	142 7.09 24	187 15.38 51	170 7.39 25	6 0.15 0	0	403 6.01 21	1076 22.40 72	57 1.61 5	18.0 0.29 1	0.8	0.98	--	1998 1856	1124		
4N/19W-33M 2 S 11- 3-64	--	7.8	1447	148 7.39 45	62 5.10 31	88 3.83 23	--	--	200 4.26 26	511 10.64 65	36 1.07 7	25.0 0.40 2	0.9	0.96	--	1100 1002	625		
5-19-65	--	7.2	1363	128 6.39 43	56 4.61 31	88 3.83 26	--	--	251 4.11 27	453 9.43 63	44 1.24 0	14 0.23 2	0.9	0.67	--	1030 908	550		
4N/19W-35C 1 S 10-23-64	61	7.6	1700	77 3.84 18	142 11.68 54	140 6.09 28	6 0.15 1	0	400 6.56 30	615 12.80 58	53 1.49 7	71.0 1.15 5	0.6	0.95	--	1498 1302	777		
UPPER PIRU HYDRO SUBAREA				U03D2															
5N/18W-15P 1 S 11-18-64	--	7.5	1370	116 5.79	52 4.28	108 4.70	--	--	247 4.05	444 9.24	55 1.55	--	1.3	2.16	--	1010	504		

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				Mineral constituents in parts per million			
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica
Date sampled				Ca	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300															
PIRU HYDRO SUBUNIT U03D0															
UPPER PIRU HYDRO SUBAREA U03D2															
6N/18W-12H 1 S 3-15-65	--	7.4	1420	173 8.63 45	35 2.88 15	170 7.39 39	0.10	4	0	367 6.02 32	576 11.99 64	25 0.71 4	0.4	0.40	--
6N/18W-15P 1 S 5-20-65	--	7.5	1118	82 4.09 35	40 3.29 28	97 4.22 36	--	--	--	216 3.54 30	349 7.27 62	34 0.96 8	1.3	1.71	--
8N/20W-26H 1 S 2-25-65	--	7.6	1670	187 9.33 49	48 3.95 21	135 5.87 31	1	0.03	0	222 3.64 19	712 14.82 79	9 0.25 1	0.4	107.00	--
HUNGRY VALLEY HYDRO SUBAREA U03D3															
7N/18W-7J 1 S 4-24-65	--	8.2	420	44 2.20 44	18 1.48 30	29 1.26 25	2	0.05	0	208 3.41 69	43 0.90 18	10 0.28 6	0.2	0.12	--
7N/19W-12B 1 S 2-24-65	--	8.0	500	47 2.35 42	17 1.40 25	40 1.74 31	2	0.05	0	222 3.64 64	70 1.46 26	11 0.31 5	0.4	0.12	--
8N/18W-15MS1 S 1-29-65	50	7.5	656	79 3.94 54	20 1.64 23	37 1.61 22	2	0.05	0	278 4.56 64	102 2.12 30	7 0.20 3	2.5	0.16	--
8N/18W-16RS1 S 1-28-65	50	7.8	702	71 3.54 48	16 1.32 18	57 2.48 34	1	0.03	0	205 3.36 46	162 3.37 46	12 0.34 5	3.2	0.08	--
Total Hardness as CaCO <sub>3</sub>															
I.D.S. Evap 180°C Computed															
Evap 105°C Computed															
Total Hardness as CaCO <sub>3</sub>															



TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					Mineral constituents in parts per million					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	Total Dissolved Solids as CaCO <sub>3</sub>		
PIRU HYDRO SUBUNIT U0300																		
HUNGRY VALLEY HYDRO SUBAREA U0303																		
8N/19W-22N 1 S 2-24-65	--	8.1	449	3 0.15 4	0	93 4.04 95	0.08 2	3 0	103 1.69 47	83 1.73 48	6 0.17 5	14.0	4.10	--	254	8		
8N/19W-34L 1 S 2-24-65	--	8.1	475	40 2.00 35	22 1.81 32	41 1.78 31	3 0.08 1	0	234 3.84 67	74 1.54 27	13 0.37 6	1.8	0.08	--	318 310	191		
8N/19W-35P 1 S 2-24-65	69	8.0	430	13 0.65 14	1 0.08 2	90 3.91 84	1 0.03 1	0	220 3.61 79	20 0.42 9	18 0.51 11	0.2	0.17	--	300 253	37		
STAUFFER HYDRO SUBAREA U0304																		
7N/21W-30 1 S 11-25-64	66	8.4	810	6 0.30 3	2 0.16 2	201 8.74 95	1 0.03	7 0.23 3	376 6.16 68	102 2.12 23	17 0.48 5	1.4	0.72	--	562 526	23		
8N/20W-18N 3 S 2-25-65	--	8.4	1020	8 0.40 4	1 0.08 1	245 10.65 95	2 0.05	11 0.37 3	478 7.83 70	39 0.81 7	78 2.20 20	1.0	0.47	--	700 620	24		
8N/20W-33K 1 S 2-25-65	--	8.0	805	54 2.69 27	41 3.37 34	84 3.65 37	3 0.08 1	0	419 6.87 71	73 1.52 16	42 1.18 12	0.4	0.57	--	550 510	303		
8N/21W-24J 1 S 2-26-65	--	8.0	990	103 5.14 41	44 3.62 29	83 3.61 29	4 0.10 1	0	303 4.97 40	338 7.04 57	12 0.34 3	0.4	10.70	--	830 744	438		



TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent reactance value					Mineral constituents in parts per million					Total hardness as CaCO <sub>3</sub>																		
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlor- ide Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	T.O.S. Evap- orated Solid Compd																					
PIRU HYDRO SUBUNIT U03D0																			SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																		
STAUFFER HYDRO SUBAREA U03D4																																					
8N/21W-25C 1 S 2-26-65	--	8.2	550	34 1.70 27	5 0.41 6	98 4.26 67	1 0.03	0	257 4.21 67	79 1.64 26	14 0.39 6	0.0	0.2	0.88	--	380 358	106																				
8N/21W-26R 1 S 2-26-65	--	8.0	340	47 2.35 61	13 1.07 28	9 0.39 10	1 0.03	0	217 3.56 92	3 0.06 2	6 0.17 4	4 0.06 2	0.1	0.13	--	220 190	171																				
8N/21W-33R 3 S 11-25-64	54	7.7	685	87 4.34 53	23 1.89 23	45 1.96 24	1 0.03	0	233 3.82 48	185 3.85 48	11 0.31 4	2.0 0.03	0.8	0.64	--	494 470	312																				

TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fuo- ride F	Boron B	SiO <sub>2</sub>	Total Dissolved Solids TDS
Date sampled																
UPPER SANTA CLARA R HYDRO SUBUNITU03E0 EASTERN HYDRO SUBAREA U03E1																
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																
4N/15W-22E 4 S 5- 4-65	--	7.8	934	94 4.69 48	26 2.14 22	68 2.96 30	0.08	3	0	329 5.39 55	112 2.33 24	59 1.66 17	0.5	--	--	342
8-23-65	69	8.3	929	92 4.59 45	31 2.55 25	68 2.96 29	0.08	3	0	332 5.44 54	118 2.46 24	64 1.80 18	--	--	--	357
4N/15W-23F 1 S 8-23-65	71	8.1	952	98 4.89 47	28 2.30 22	74 3.22 31	0.08	3	0	352 5.77 56	108 2.25 22	80 2.26 22	--	--	--	360
4N/16W-14D 1 S 5- 4-65	--	7.6	1440	128 6.39 40	61 5.02 32	100 4.35 28	0.05	2	0	359 5.88 38	263 5.48 35	104 2.93 19	0.6	--	--	571
4N/16W-16Q 3 S 5- 4-65	--	7.5	1480	146 7.29 45	54 4.44 27	105 4.57 28	0.08	3	0	395 6.47 40	272 5.66 35	112 3.16 19	0.7	--	--	587
4N/16W-16D 1 S 8-23-65	67	8.2	998	87 4.34 39	37 3.04 27	87 3.78 34	0.05	2	0	314 5.15 47	214 4.46 40	48 1.35 12	--	--	--	369
4N/16W-21D 1 S 6-29-65	64	7.8	964	105 5.24 50	33 2.71 26	58 2.52 24	0.08	3	0	268 4.39 42	256 5.33 51	26 0.73 7	0.6	0.24	--	398
4N/16W-22C 3 S 5- 4-65	--	7.6	1030	106 5.29 49	22 1.81 17	83 3.61 33	0.08	3	0	320 5.24 48	167 3.48 32	60 1.69 15	0.6	--	--	355
																632

**TABLE E-1**  
**ANALYSES OF GROUND WATER**  
**LOS ANGELES DRAINAGE PROVINCE (U)**

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million					Mineral constituents in parts per million									
				Calcium Ca	Magne-sium Mg	Sodium Na	Potas-sium K	Carbon-ate CO <sub>3</sub>	Bicar-bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo-ride Cl	Ni-trate NO <sub>3</sub>	Fluo-ride F	Boron B	Silica SiO <sub>2</sub>	Total Hardness as CaCO <sub>3</sub>		
UPPER SANTA CLARA R HYDRO SUBUNIT U03E0 EASTERN HYDRO SUBAREA U03E1 SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																		
4N/16W-23G 3 S 8-23-65	67	8.3	1020	114 5.69 50	30 2.47 22	74 3.22 28	3 0.08 1	0	307 5.03 44	186 3.87 34	65 1.83 16	47.0 0.76 7	--	--	--	408		
4N/16W-27J 2 S 5- 4-65	--	7.6	907	108 5.39 54	28 2.30 23	50 2.17 22	2 0.05 1	0	270 4.43 45	210 4.37 45	28 0.79 8	14.0 0.23 2	0.7	--	--	385		
8-23-65	63	8.2	856	106 5.29 54	27 2.22 23	53 2.30 23	2 0.05 1	0	278 4.56 47	200 4.16 43	30 0.85 9	7.0 0.11 1	--	--	--	376		
4N/17W- 1J 1 S 4-22-65	--	7.5	1362	134 6.69 43	54 4.44 29	99 4.30 28	4 0.10 1	0	305 5.00 32	404 8.41 54	68 1.92 12	13 0.21 1	1.3	0.52	--	557		
4N/17W-10M 1 S 4-22-65	--	7.4	3205	273 13.62 35	91 7.48 19	396 17.22 45	3 0.08	0	322 5.28 14	1308 27.23 70	206 5.81 15	40 0.65 2	1.4	1.12	--	1056		
4N/17W-12B 4 S 7-20-65	--	7.6	1898	172 8.58 39	73 6.00 27	165 7.17 33	5 0.13 1	0	405 6.64 30	502 10.45 48	141 3.98 18	47 0.76 3	1.2	0.72	--	730		
4N/17W-12R 1 S 5- 4-65	--	8.1	1270	125 6.24 43	48 3.95 27	100 4.35 30	3 0.08 1	0	271 4.44 31	437 9.10 63	28 0.79 5	10.5 0.17 1	0.5	--	--	510		
4N/17W-14Q 1 S 5- 4-65	--	7.1	1920	224 11.18 48	77 6.33 27	133 5.78 25	5 0.13 1	0	397 6.51 28	683 14.22 61	84 2.37 10	5.5 0.09	0.8	--	--	876		
																1408		

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						parts per million equivalents per million reactance value						Mineral constituents in parts per million					
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Barytes Ba	Silica SiO <sub>2</sub>	Evap 180°C Evap 105°C as Computed					
UPPER SANTA CLARA R HYDRO SUBUNIT U0300																					
EASTERN HYDRO SUBAREA U0301																					
4N/17W-14Q 1 S 8-23-65	58	8.1	1770	206 10.28 47	71 5.84 27	128 5.57 26	5 0.13 1	0	368 6.03 28	633 13.10 61	62 2.31 11	7.0 0.11 1	--	--	--	--	--	1313	807		
4N/17W-15N 1 S 8-23-65	72	8.6	3140	10 0.50 2	4 0.33 1	730 31.74 97	1 0.03	0	343 5.62 17	935 19.47 60	270 7.61 23	0	--	--	--	--	--	2119	42		
4N/17W-16N 1 S 8-23-65	67	8.7	1670	187 9.03 44	64 5.26 26	137 5.96 29	5 0.13 1	0	375 6.15 30	575 11.93 59	71 2.00 10	7.0 0.11 1	--	--	--	--	--	1222	715		
5N/16W-7J 1 S 4-4-65	--	7.9	1600	167 8.33 40	75 6.00 29	152 6.61 31	4 0.10	0	329 5.39 26	554 11.53 56	133 3.75 18	3 0.05	1.2	0.75	--	--	--	1398	717		
5N/16W-8D 1 S 4-4-65	--	7.7	3000	202 10.08 19	115 9.29 17	793 36.35 64	11 0.28 1	0	361 6.24 12	2150 44.23 84	60 1.80 3	13 0.21	0.4	0.40	--	--	--	1250	969		
5N/17W-12D 1 S 4-4-65	--	7.9	1340	162 8.08 46	61 5.07 29	56 4.17 24	5 0.13 1	0	272 4.46 26	498 10.37 61	71 2.00 12	16 0.26 2	0.8	0.58	--	--	--	1156	656		
5N/17W-12J 1 S 4-4-65	--	8.0	1690	129 6.44 31	63 9.18 25	213 9.26 44	6 0.15 1	0	366 6.00 29	461 9.60 46	174 4.91 24	15 0.24 1	0.8	0.75	--	--	--	1346	561		
5N/17W-12K 1 S 4-4-65	--	8.2	1410	113 5.64 32	50 4.11 23	180 7.83 44	6 0.15 1	0	352 5.77 33	411 8.56 49	110 3.10 18	0	0.8	0.70	--	--	--	1130	485		

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million reactance value					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Baron B	Sili- ca SiO <sub>2</sub>	Total Hardness as CaCO <sub>3</sub>		
UPPER SANTA CLARA R HYDRO SUBUNIT U03EU																		
EASTERN HYDRO SUBAREA U03EI																		
5N/17W-24B 1 S 3-16-65	--	7.8	1220	99 4.94 33	75 6.17 41	91 3.96 26	5 0.13 1	0	268 4.39 29	423 8.85 58	67 1.89 12	10 0.16 1	0.8	0.52	--	996 905	556	
5N/17W-36H 4 S 8-23-65	67	8.2	1270	133 6.64 45	50 4.11 28	90 3.91 26	4 0.10 1	0	287 4.70 32	388 8.08 55	64 1.80 12	7.0 0.11 1	--	--	--	--	538	
6N/17W-26B 1 S 2-4-65	--	8.7	2200	17 0.85 3	4 0.32 1	615 26.74 95	4 0.10 1	73 2.43 y	690 11.31 41	546 11.37 41	91 2.57 y	15 0.24 1	1.6	2.50	--	877 2158 1708	59	
ACTON HYDRO SUBAREA U03LE5																		
4N/13W-100 1 S 4-22-65	--	7.9	574	57 2.84 49	16 1.32 23	36 1.57 27	2 0.05 1	0	205 3.36 58	68 1.42 24	34 0.96 16	5 0.10 2	0.5	0.16	--	390 320	208	
4N/13W-17C 4 S 4-22-65	--	7.7	539	55 2.74 51	15 1.23 23	31 1.35 25	2 0.05 1	0	195 3.20 59	61 1.27 23	30 0.85 16	9 0.15 3	0.5	0.18	--	360 299	199	
5N/12W-28F 1 S 4-22-65	--	7.8	864	87 4.34 50	21 1.73 20	60 2.61 30	3 0.08 1	0	173 2.84 34	58 1.21 15	127 3.58 43	44 0.71 9	0.5	0.08	--	610 486	304	
5N/12W-30K 1 S 4-22-65	--	7.8	823	77 3.84 50	28 2.30 30	33 1.43 19	6 0.15 2	0	137 2.25 29	45 0.74 12	138 3.83 50	44 0.71 9	0.4	0.04	--	590 439	307	

SANTA CLARA-CALLEGUAS HYDRO UNIT U0300



TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reactance value				Mineral constituents in parts per million					
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	Total Dissolved Solids Expressed as CaCO <sub>3</sub>	
UPPER SANTA CLARA R HYDRO SUBUNIT U03E0 ACTON HYDRO SUBAREA U03E5																	
5N/13W-25C 1 S 4-22-65	--	7.7	861	86 4.29 50	24 1.97 23	51 2.22 26	2 0.05 1	0	156 2.56 30	147 3.06 35	94 2.65 31	22 0.35 4	0.6	0.40	--	590 504	313

TABLE E-1

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				Mineral constituents in parts per million					
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Ferric oxide Fe <sub>2</sub> O <sub>3</sub>	Boron B	Silica SiO <sub>2</sub>	TDS Evaporated and Computed CaCO <sub>3</sub>	
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																	
CALLEGUAS-CONEJO HYDRO SUBUNIT U03F0																	
WEST LAS POSAS HYDRO SUBAREA U03F1																	
2N/21W-8G 1 S 10-21-64	--	7.9	820	59	34	4.30	99	0.08	3	0	316	140	70	13.0	0.4	0.36	602
				2.94	2.80	28	4.30	0.08	1		5.18	2.91	1.91	0.21			574
EAST LAS POSAS HYDRO SUBAREA U03F2																	
3N/19W-19P 2 S 8-26-65	70	7.6	439	48	17	0.91	21	0.05	2	0	161	90	10	1	0.4	0.04	290
				2.40	1.40	29	0.91	0.05	1		2.64	1.87	0.28	0.02			269
3N/19W-29F 2 S 12-10-64	--	7.2	308	24	7	1.09	25	0.03	1	0	104	7	23	23.0	0.4	0.05	223
				1.20	0.58	1.09	25	0.03	1		1.70	0.15	0.65	0.37			162
3N/20W-24R 1 S 8-26-65	--	7.5	390	34	15	1.00	23	0.10	4	0	159	54	12	2	0.4	0.06	290
				1.70	1.23	1.00	23	0.10	2		2.61	1.12	0.34	0.03			223
ARROYO SANTA ROSA HYDRO SUBAREA U03F3																	
2N/22W-23K 1 S 10-28-64	--	7.6	850	45	49	2.07	64	0.03	1	0	336	71	72	5.0	0.4	0.14	540
				2.25	4.03	2.07	64	0.03			5.51	1.48	2.05	0.08			540
2N/22W-24E 1 S 10-28-64	71	8.0	959	52	59	2.96	68	0.05	2	0	326	92	92	10.0	0.6	0.14	630
				2.59	4.85	2.96	68	0.05			5.34	1.92	2.68	0.29			619

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fuo- ride F	Boron B	Sul- fo- ur SO <sub>2</sub>	T.T.S. Evap 180°C Evap 105°C Computed	Hardness as CaCO <sub>3</sub> See 3	
CALLEGUAS-CONEJO HYDRO SUBUNIT U03F0																		
ARROYO SANTA ROSA HYDRO SUBAREA U03F3																		
2N/20W-25D 5 S 8-18-65	--	7.6	1175	76 3.79 30	68 5.59 45	71 3.09 25	1 0.03	0	375 6.11 49	115 2.39 19	79 2.79 22	75 1.21 10	0.3	0.19	--	846 689	469	
CONEJO VALLEY HYDRO SUBAREA U03F4																		
1N/20W-3J 1 S 11-13-64	--	8.1	711	51 2.54 33	38 3.13 41	47 2.04 26	0	0	284 4.65 60	98 2.04 26	37 1.04 13	1.0 0.02	0.4	0.07	--	454 412	284	
1N/20W-15R 3 S 11-13-64	--	7.7	778	66 3.29 40	34 2.80 34	49 2.13 26	0	0	295 4.84 59	73 1.52 19	55 1.55 19	16.0 0.26 3	0.3	0.05	--	472 438	305	
9-23-65	--	7.3	816	70 3.49 41	34 2.80 55	52 2.26 26	0	0	305 5.00 59	77 1.00 19	59 1.00 19	17 0.27 3	0.3	0.04	--	470 459	315	
SIMI VALLEY HYDRO SUBAREA U03F7																		
2N/17W-9D 3 S 10-22-64	--	7.4	1431	135 6.74 41	54 4.44 27	120 5.22 52	5 0.13 1	0	388 6.36 56	370 7.70 46	89 2.51 15	2.0 0.03	1.0	0.70	17	1045 984	559	
2N/17W-15D 2 S 10-20-64	--	7.2	1477	137 6.84 38	78 6.41 56	105 4.57 26	3 0.08	0	536 8.79 50	537 7.02 40	60 1.00 11	1.0 0.02	1.1	0.26	25	1050 1017	663	

TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent reactance value					Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	Total hardness as CaCO <sub>3</sub>		
CALLEGUAS-CONEJO HYDRO SUBUNIT SIMI VALLEY HYDRO SUBAREA																		
U03FJ U03F7																		
2N/18W-1M 3 S 12-17-64	--	7.4	2833	284 14.17 40	119 9.79 28	252 10.96 31	7 0.18 1	0	420 6.88 20	1046 41.78 63	212 5.98 17	8.0 0.13	1.2	1.80	--	2367 1199 2139		
2N/18W-11B 2 S 10-23-64	--	7.4	2179	221 11.03 40	96 7.93 29	195 8.48 31	6 0.15 1	0	359 5.88 22	831 17.30 64	137 3.86 14	6.0 0.10	1.2	1.25	48	1810 947 1719		
2N/18W-15G 2 S 10-16-64	--	7.5	1536	156 7.78 40	62 5.10 27	144 6.26 33	3 0.08	0	390 6.39 34	465 9.68 51	94 2.65 14	15.0 0.21 1	1.4	0.42	35	1225 645 1166		
2N/18W-18G 2 S 12-11-64	--	7.6	496	42 2.10 42	20 1.64 33	29 1.26 25	1 0.03 1	0	207 3.39 68	24 0.50 10	36 1.02 20	6.0 0.10 2	0.7	0.05	--	299 187 260		
THOUSAND				U03F8														
1N/19W-2L 1 S 11-30-64	--	7.4	864	105 5.24 56	31 2.59 27	37 1.61 17	1 0.03	0	357 5.85 62	116 2.42 25	45 1.21 13	1.0 0.02	1.1	0.09	--	574 390 511		

TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per million			Mineral constituents in parts per million						
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	TDS Evaporitic Exposed to Air Computed		
MALIBU CREEK HYDRO SUBUNIT																		
MALIBU CREEK HYDRO SUBAREA				MALIBU HYDRO UNIT														
				U0480														
				U0481														
1S/17W-29P 1 S 6-15-65	64	7.2	1600	141 7.04 36	84 6.83 35	126 5.48 28	2 0.05	0	376 6.23 32	527 10.97 56	79 2.23 11	1 0.02	0.6	0.65	--	1200 1146	694	
1S/17W-32F 4 S 6-15-65	65	7.6	5051	426 21.26 38	249 10.48 37	323 14.04 25	4 0.10	0	361 5.92 11	619 12.89 23	1290 56.36 66	10 0.16	0.7	0.62	--	3340 3100	2089	
LAS VIRGENES VALLEY HYDRO SUBAREA																		
				U0482														
1M/17W-17J 1 S 3-23-65	64	7.5	3400	313 15.62 34	148 7.17 26	420 18.26 39	15 0.38 1	0	643 10.54 23	1436 29.90 65	202 5.70 12	0.0	0.6	0.53	--	3216 2851	1391	
1M/17W-30G 2 S 3-23-65	--	7.6	3250	361 19.01 60	146 7.01 26	345 15.00 33	12 0.31 1	0	504 8.26 18	1489 31.00 68	216 6.09 13	5 0.08	0.6	0.79	--	3096 2823	1502	
1M/18W-24J 2 S 3-23-65	--	7.5	940	105 5.24 42	59 4.05 39	50 2.17 18	3 0.08 1	0	311 5.10 42	274 6.12 51	31 0.87 7	0.0	0.6	0.03	--	812 696	505	
RUSSELL VALLEY HYDRO SUBAREA																		
				U0485														
1M/19W-24M 2 S 11-19-64	--	8.0	1817	27 1.35 7	72 1.81 19	360 15.65 83	5 0.13 1	0	520 8.52 44	407 8.47 44	72 2.03 11	8.0 0.13 1	0.9	0.14	--	1213 1158	158	



TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per percent					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlor- ide Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Sulf- ur SO <sub>2</sub>	Evap- orated CO <sub>2</sub>	Hardness as CaCO <sub>3</sub>		
MALIBU CREEK HYDRO SUBUNIT																		
SHERWOOD HYDRO SUBAREA																		
U04B0																		
MALIBU HYDRO UNIT																		
U04B6																		
U0400																		
1N/19W-29D 5 S 11-19-64	--	8.0	732	80 3.99 50	29 2.38 30	37 1.61 20	1 0.03	0	357 5.85 73	48 1.00 13	33 0.93 12	13.0 0.21 3	0.3	0.02	--	460 417	319	
1N/20W-24P 1 S 7- 9-62	83	7.5	875	75 3.74 39	34 2.80 29	71 3.09 32	2 0.05 1	0	378 6.20 66	112 2.33 25	33 0.93 10	0	0.1	0.10	29	556 542	327	
9-23-65	70	7.4	949	80 3.99 39	36 2.96 29	76 3.30 32	2 0.05	0	428 7.01 68	96 2.00 19	45 1.27 12	0	0.3	0.10	--	550 546	348	

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent					Mineral constituents in parts per million								
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Ferric Fe	Boron B	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Evaporates Evap. Resid.	Hardness as CaCO <sub>3</sub>			
POINT DUME HYDRO SUBUNIT				MALIBU HYDRO UNIT																		
ZUMA CANYON HYDRO SUBAREA				U04C6																		
25/18W-6M 2 S 6-15-65	63	7.3	1267	134 6.69 46	68 5.59 38	53 2.50 16	1 0.03	0	373 6.11 42	309 6.43 44	70 1.77 15	12 0.19 1	0.4	0.05	--	1000 831	614					
TRANCAS CANYON HYDRO SUBAREA				U04C7																		
15/19W-35Q 2 S 6-14-65	--	7.6	1072	67 3.34 29	61 5.02 43	74 3.22 28	1 0.03	0	244 4.00 34	214 4.46 38	111 3.13 27	3 0.05	0.5	0.20	--	710 652	418					

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				million reactance value				Mineral constituents in parts per million			
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- co SiO <sub>2</sub>	TDS Extr. 100°C Extr. 105°C Computed	7-10 Extr. 100°C Extr. 105°C Computed		
CAMARILLO HYDRO SUBUNIT U04D0																			
LITTLE SYCAMORE CYN HYDR SUBAREA U04D5																			
MALIBU HYDRO UNIT U0400																			
1S/2W=22P 1 S 6-15-65	71	7.9	1774	79 3.94 27	74 6.09 42	103 4.48 31	1 0.03	0	390 6.39 44	283 5.89 41	71 2.17 15	2 0.03	0.7	0.22	--	830 812	502		
1S/2W=22P 2 S 6-15-65	71	7.6	1312	73 3.64 24	89 7.32 49	90 3.91 26	2 0.05	0	398 6.52 44	281 5.85 39	88 2.48 17	5 0.08 1	0.6	0.13	--	860 824	548		

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in						parts per million		Mineral constituents in parts per million					
				Calcium	Magnesium	Sodium	Sulfate	Chloride	Carbonate	Bicarbonate	Fluoride	Calcium	Fluoride	Sulfate	Chloride	Carbonate	Fluoride
Date sampled				Ca	Mg	Na	SO <sub>4</sub>	Cl	CO <sub>3</sub>	HCO <sub>3</sub>	F	Ca	F	SO <sub>4</sub>	Cl	CO <sub>3</sub>	F
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																	
WEST COAST HYDRO SUBAREA U05A2																	
2S/14W-18Q 1 S 5- 3-65	--	8.0	1150	84 4.19 34	35 2.08 23	116 5.04 41	0.23 0.23 2	111 3.24 26	0	410 6.72 55		115 3.24 26	--	--	--	--	354 672
2S/14W-19K 2 S 11- 4-64	75	7.8	1066	140 6.89 35	58 4.77 24	180 8.07 40	0.15 0.15 1	274 7.13 39	0	460 7.87 40		274 7.13 39	--	--	--	--	588 1104
8- 3-65	75	7.7	1070	147 7.34 36	62 5.13 25	186 7.83 38	0.15 0.15 1	270 7.08 39	0	500 8.20 40		270 7.08 39	0.5	--	--	--	622 1123
8- 3-65	75	7.7	1071	147 7.34 36	62 5.13 25	186 7.83 38	0.15 0.15 1	270 7.08 39	0	517 8.47 41		270 7.08 39	--	--	--	--	632 1151
2S/14W-19K 2 S 11- 4-64	75	8.0	1152	81 4.04 34	34 2.08 23	120 5.22 42	0.26 0.26 2	111 3.24 26	0	403 6.61 54		111 3.24 26	--	--	--	--	342 674
8- 1-65	75	7.9	1200	83 4.14 32	34 3.21 25	124 5.39 42	0.26 0.26 2	122 3.54 27	0	417 6.83 53		122 3.54 27	--	--	--	--	368 710
8- 2-65	75	8.0	1070	79 3.74 33	30 2.04 24	110 4.78 41	0.16 0.16 2	104 2.93 25	0	406 6.69 56		104 2.93 25	--	--	--	--	337 646
2S/15W-34K 1 S 1-18-65	--	8.0	929	57 2.86 30	28 2.30 24	97 4.22 45	3 0.08 1	154 3.21 34	0	131 2.45 23		154 3.21 34	--	--	--	--	157 572

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million reactance value				Mineral constituents in parts per million					
				Calcium Co	Magne-sium Mg	Sodium Na	Potas-sium K	Carbon-ate CO <sub>3</sub>	Bicar-bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo-ride Cl	Ni-trate NO <sub>3</sub>	Flu-oride F	Boron B	Sili-ca SiO <sub>2</sub>	Total Hardness as CaCO <sub>3</sub>	
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																	
WEST COAST HYDRO SUBAREA U05A2																	
L A SAN GABRIEL RIVER HYDRO UNIT U0500																	
3S/13W-19K 2 S 7-20-65	--	8.8	405	12 0.60 18	2 0.16 5	55 2.39 70	10 0.20 5	0	1.28 35	11 0.23 6	75 2.12 58	0	--	--	--	38	
3S/13W-29G 3 S 10-23-64	--	7.9	1270	93 4.64 33	61 5.02 35	101 4.39 31	5 0.13 1	--	315 5.16 36	121 2.52 18	235 6.63 46	0.0	0.1	0.20	--	483	
3-26-65	--	7.8	1337	133 6.64 50	32 2.63 20	91 3.96 30	5 0.13 1	0	305 5.00 38	99 2.06 16	211 5.95 46	0	0.3	0.13	--	464	
3S/13W-31E 2 S 7-20-65	--	8.2	491	41 2.05 41	16 0.82 16	47 2.04 41	3 0.08 2	0	207 3.39 65	47 0.98 19	50 0.85 16	0	--	--	--	144	
3S/13W-31L 7 S 7-20-65	--	7.4	1680	170 8.48 43	76 6.25 32	115 5.00 25	2 0.05 0	0	481 7.88 39	456 9.49 47	94 2.65 15	10 0.16 1	--	--	--	737	
3S/13W-31M 1 S 11- 2-64	--	7.6	530	51 2.54 46	13 1.07 19	43 1.87 34	3 0.08 1	0	223 3.65 65	62 1.29 23	24 0.68 12	1.0 0.02	0.5	0.11	29	181	
3-25-65	--	7.7	549	50 2.50 44	12 0.99 17	48 2.09 37	3 0.08 1	0	224 3.67 65	59 1.23 22	26 0.73 13	0	0.4	0.09	--	175	
3S/13W-32E 2 S 10-23-64	--	7.9	590	46 2.30 36	23 1.89 30	49 2.13 33	3 0.08 1	--	233 3.82 59	84 1.75 27	32 0.90 14	0.0	0.2	0.17	--	210	
																352	



TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million reactance value				Mineral constituents in parts per million					
				Calcium Mg	Magne- sium Mg	Sodium Na	Potassium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Mercur B	Sulf- ide S <sub>2</sub>	Hardness Total Computed	
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																	
WEST COAST HYDRO SUBAREA U05A2																	
35/13W-32E 2 S 3-25-65	72	8.1	502	47 2.35	10 0.82	45 1.96	3 0.08	0	230 3.77	36 0.75	25 0.71	0	0.4	0.11	--	290 280	
35/13W-34W 2 S 3-25-65	--	7.4	678	69 3.44	9 0.74	53 2.30	2 0.05	0	209 3.43	62 1.29	69 1.95	0	0.2	0.06	--	340 367	
35/14W-3K 1 S 11-4-64	74	7.2	510	40 2.00	19 1.56	50 2.17	4 0.10	0	265 4.34	7 0.15	42 1.18	2.0 0.03	0.3	0.14	--	358 178	
4-5-65	--	8.0	520	47 2.35	11 0.70	47 2.04	4 0.10	0	256 4.20	2 0.04	38 1.07	0.0 0.0	0.2	0.15	--	290 275	
35/14W-7K 4 S 10-29-64	--	8.2	1044	49 2.45	25 2.06	150 6.52	3 0.08	0	496 8.13	9 0.19	94 2.59	4 0.06	--	--	--	226 576	
35/14W-70 4 S 10-29-64	--	8.4	1959	57 2.84	26 2.14	140 6.09	3 0.08	0	429 7.03	7 0.15	129 3.64	6 0.10	--	--	--	249 579	
35/14W-70 6 S 10-29-64	--	8.6	808	36 1.92	21 1.73	110 4.78	3 0.08	0	401 6.57	3 0.06	66 1.86	6 0.10	--	--	--	162 444	
35/14W-130 5 S 10-26-64	--	7.9	2050	168 8.38	56 4.61	190 8.26	3 0.08	0	403 6.61	143 2.98	335 9.45	12.0 2.08	0.1	0.19	--	1520 1222	

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million				Mineral constituents in parts per million					
				Calcium	Magne- sium	Sodium	Potas- sium	Carbon- ate	Bicar- bonate	Sulfate	Chlo- ride	Ni- trate	Fluo- ride	Boron	Sili- ca	TDS Evap 180°C hardness as CaCO <sub>3</sub>	
Date sampled				Ca	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>		
COASTAL PL OF LA CO HYDR SUBUNIT U0540																	
WEST COAST HYDRO SUBAREA U0542																	
3S/14W-130 5 S 4- 5-65	--	8.0	2110	151 7.53 35	76 6.24 29	175 7.61 35	3 0.08	0	429 7.03 33	140 2.91 14	325 9.17 43	141 2.27 11	0.3	0.14	--	1234 1222	690
3S/14W-17G 2 S 10-26-64	--	7.7	590	36 1.80 27	18 1.48 22	74 3.22 48	8 0.20 3	0	346 5.67 84	0 1.10 16	39 1.10 16	0.0	0.2	0.22	--	374 346	164
3S/14W-18N 4 S 10-26-64	--	8.1	1389	109 5.44 41	36 2.96 22	107 4.65 35	8 0.20 2	0	283 4.64 35	44 0.92 7	273 7.70 56	2 0.03	--	--	--	--	420
3-12-65	--	8.0	1430	114 5.69 41	39 3.21 23	107 4.65 34	8 0.20 1	0	282 4.62 33	56 1.17 8	291 8.21 59	0	--	--	--	754	445
3S/14W-18N 5 S 10-26-64	--	8.0	1689	134 6.69 40	47 3.87 23	138 6.00 36	9 0.23 1	0	292 4.79 29	87 1.81 11	355 10.01 60	0	--	--	--	914	528
3S/14W-21R 2 S 7-15-65	--	7.8	378	28 1.40 36	7 0.58 15	42 1.83 46	5 0.13 3	0	181 2.97 75	26 0.54 14	15 0.42 11	1 0.02 1	0.6	0.16	--	210 214	99
3S/14W-22K 1 S 10-27-64	--	7.8	540	35 1.75 32	18 1.48 27	51 2.22 40	4 0.10 2	--	227 3.72 65	53 1.10 19	32 0.90 16	0.0	0.2	0.17	--	324 305	162
4- 6-65	--	8.5	550	47 2.35 40	17 1.40 24	47 2.04 35	4 0.10 2	3 0.10 2	240 3.93 66	42 0.87 15	38 1.07 18	0.0	0.2	0.13	--	330 316	188

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent reactance value					Mineral constituents in parts per million				
				Calcium mg	Magnesium mg	Sodium mg	Potassium mg	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Fluoride F	Calcium mg	Sulfate SO <sub>4</sub>	Bicarbonate HCO <sub>3</sub>	Fluoride F	Calcium mg	Sulfate SO <sub>4</sub>
COASTAL PL OF LA CO HYDR SUBUNIT U05A0 WEST COAST HYDRO SUBAREA U05A2																		
35/14W-22L 1 S 11- 4-64	73	7.6	580	52	15	48	0.10	4	0	249	40	34	0.4	2.0	0.12	3.4	0.4	191
				2.59	1.23	2.09	0.10			4.08	0.83	0.96		0.03				318
				43	20	35				69	14	16		1				
4- 1-65	74	7.7	566	44	16	48	4	4	0	253	36	34	0.5	1.0	0.08			176
				2.20	1.32	2.09	0.10			4.15	0.75	0.96		0.02				368
				39	23	37				71	13	16						
35/14W-22R 2 S 10-27-64	--	7.6	1180	109	33	105	5	0	0	160	49	323	0.2	0.0	0.33			408
				5.44	2.71	4.57	0.13			2.62	0.94	9.11						699
				42	21	36	1			21	7	72						
4- 6-65	--	8.1	1510	124	53	115	6	0	0	217	31	426	0.2	0.0	0.28			528
				6.19	4.26	5.00	0.15			3.26	0.55	11.84						856
				39	28	52	1			22	4	74						
35/14W-25K 4 S 10-26-64	--	7.5	650	76	16	50	3	0	0	222	39	90	0.2	0.0	0.07			256
				3.79	1.33	2.17	0.08			3.64	1.02	2.34						398
				51	18	29	1			51	14	35						
4- 5-65	67	8.0	740	71	19	61	4	0	0	250	55	67	0.5	0.5	0.11			255
				3.54	1.56	2.22	0.10			3.77	1.15	2.65						415
				48	21	30	1			51	16	53						408
35/14W-27C 1 S 10-26-64	--	7.5	760	90	34	88	2	0	0	225	55	210	0.1	0.0	0.12			366
				4.49	2.63	3.83	0.13			3.69	1.10	6.09						597
				41	24	36	1			34	10	56						
4- 6-65	66	7.9	924	76	20	67	4			225	57	124	0.4	0.0	0.05			272
				3.79	1.64	2.91	0.10			3.85	1.17	3.50						515
				45	19	36	1			49	14	41						466

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent reactance value					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	TD <sub>500C</sub> Evap 105°C Computed	* Tot- al Hardness at 25°C	
COASTAL PL OF LA CO HYDR SUBUNIT U05A0 WEST COAST HYDR SUBAREA U05A2																		
3S/14W-290 3 S 11- 2-64	--	8.0	700	51 2.54 34	15 1.23 16	83 3.61 48	7 0.16 2	0	320 5.24 72	4 0.06 1	70 1.97 27	1.0 0.02	0.2	0.16	--	396 389	189	
4- 7-65	--	8.1	1180	56 2.79 22	17 1.40 11	192 8.35 66	6 0.15 1	0	171 2.80 22	314 6.54 52	110 3.10 25	2 0.03	0.2	0.18	--	794 781	210	
3S/14W-290 3 S 10-28-64	--	8.1	710	47 2.35 31	17 1.40 19	85 3.70 49	3 0.08 1	0	313 5.13 71	3 0.06 1	70 1.97 27	3 0.05 1	--	--	--	188 382	188	
3S/14W-300 2 S 12- 7-64	--	8.5	2100	96 4.89 23	37 3.04 15	293 12.74 61	9 0.23 1	0	168 2.75 13	324 6.75 32	408 11.51 55	0	--	--	--	397 1252	397	
5-20-65	--	8.2	2080	92 4.59 22	34 2.80 14	304 13.22 64	4 0.10	0	167 2.74 13	331 6.89 33	395 11.14 54	0	--	--	--	370 1242	370	
3S/14W-30E 1 S 1-14-65	--	8.2	906	61 3.04 35	15 1.23 14	100 4.35 50	4 0.10 1	0	126 2.07 24	85 1.77 20	134 3.78 43	70.0 1.13 13	--	--	--	531 202	214	
3S/14W-30F 2 S 1-13-65	--	8.5	1040	53 2.64 26	17 1.40 14	142 6.17 60	0	0	167 2.74 27	160 3.33 33	146 4.12 40	0	--	--	--	600 1500	202	
3S/14W-30G 1 S 10-28-64	--	7.6	2000	192 9.58 40	77 6.33 26	183 7.96 33	14 0.36 1	0	221 3.62 15	99 2.06 9	644 18.16 76	0.0	0.2	0.16	--	1318 796	796	

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million reactivity value					Mineral constituents in parts per million				
				Calcium mg Ca	Magne- sium mg Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlor- ide Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	I.D.S. Ex- posed as Com- puted	Total Hard- ness as Calc- ium	
COASTAL PL OF LA CO HYDR SUBUNIT U05AC WEST COAST HYDRO SUBAREA U05AZ																		
3S/14W-30G 1 S 4- 7-65	--	7.8	2200	264 13.17 56	35 2.88 12	160 6.96 30	12 0.31 1	0	224 3.67 16	90 1.87 8	617 17.40 76	0	0.1	0.17	--	1654 1288	200	
3S/14W-30H 2 S 10-27-64	--	8.3	1259	103 5.14 42	31 2.55 21	100 4.35 36	8 0.20 2	0	224 3.67 30	52 1.08 9	261 7.36 61	1 0.02	--	--	--	666	485	
11- 2-64	--	7.8	1020	57 2.84 23	62 5.10 42	93 4.04 33	7 0.18 1	0	227 3.72 30	56 1.17 9	264 7.44 60	0.0	0.2	0.16	--	784 651	397	
4- 7-65	--	8.1	1120	109 5.44 45	30 2.67 20	93 4.04 33	7 0.18 1	0	237 3.88 32	37 0.77 6	262 7.35 61	0	0.2	0.15	--	774 655	306	
3S/14W-30N 1 S 1-13-65	--	8.7	1210	6 0.30 3	3 0.25 2	255 11.09 95	2 0.05 1	0	152 2.49 21	307 6.39 55	100 2.82 24	0	--	--	--	26	26	
3S/14W-31A 4 S 10- 8-64	--	7.9	2350	195 9.73 43	51 4.19 18	196 8.92 39	10 0.26 1	0	226 3.70 16	138 2.87 13	578 16.30 71	0.0	--	--	--	746 1279	497	
1-15-65	--	8.2	2020	169 8.43 42	47 3.87 19	172 7.48 37	9 0.23 1	0	237 3.88 19	117 2.44 12	484 13.65 68	0	--	--	--	1114	619	
6-16-65	--	8.1	2140	181 9.03 42	48 3.95 16	190 8.26 38	16 0.26 1	0	219 3.52 16	195 4.06 19	488 13.76 64	0	--	--	--	1218	650	



TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million					
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Surface sulfate	Chloride	Nitrate	Fluoride	Barium	Sulfate
Date sampled				Ca	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SO <sub>4</sub>
WEST COAST HYDRO SUBAREA U05A2															
3S/14W-31D 1 S 12- 9-64	--	8.6	1760	15 0.75 4	9 0.74 4	354 15.39 91	3	0	2.74 16	324 6.75 40	266 7.50 44	0	--	--	--
3- 4-65	68	7.9	1680	13 0.65 4	8 0.66 4	342 14.44 91	4	0	1.68 17	322 6.70 42	235 6.63 41	0	--	--	--
7-14-65	--	8.7	1630	13 0.65 4	7 0.58 4	342 14.87 92	4	16	1.44 2.36	324 6.75 42	228 6.43 40	0	--	--	--
3S/14W-31L 2 S 11-13-64	--	8.3	12376	526 26.25 20	299 24.59 19	1860 80.87 61	34	0	2.47 4.05	482 10.04 8	4188 118.10 89	0	--	--	--
5- 4-65	--	8.1	12600	594 29.64 22	311 25.58 19	1840 80.00 59	34	0	2.46 4.03	498 10.37 8	4330 122.11 89	0	--	--	--
3S/14W-31L 4 S 6- 7-65	--	8.0	4420	332 16.65 38	133 10.94 25	360 15.65 36	18	0	2.24 3.67	127 2.64 6	1330 37.51 86	0	--	--	--
7-19-65	--	8.3	4540	340 16.97 36	138 11.35 24	412 17.91 38	19	0	2.70 3.61	142 2.96 7	1370 38.63 85	20 0.32 1	--	--	--
3S/14W-35M 6 S 7-14-65	70	7.4	434	28 1.40 30	13 1.07 23	47 2.04 44	4	0	2.37 3.88 95	0	24 0.68 15	0	0.7	0.12	--

TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million reactance value				Mineral constituents in parts per million			
				Calcium Mg	Magne sium Mg	Sodium Na	Potas sium K	Carbon ate CO <sub>3</sub>	Bicar bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlor ide Cl	N itrate NO <sub>3</sub>	Flu oride F	Bor on B	Sili ca SiO <sub>2</sub>
COASTAL PL OF LA CO HYDR SUBUNIT U05A0 WEST COAST HYDRO SUBAREA U05A2															
35/15W-3H 2 S 12- 9-64	--	9.0	1170	35 1.75 13	18 1.48 11	230 10.00 73	15 0.38 2	0	730 33.10 88	0	55 1.55 11	0.5 0.10 1	--	--	162 722 288
35/15W-13A 4 S 2-24-65	--	8.6	844	65 3.24 37	22 1.81 21	83 3.61 41	6 0.15 2	0	350 5.87 66	5 0.10 1	104 2.88 33	0	--	--	288 454 788
3- 1-65	--	7.8	2380	195 9.73 41	72 5.92 25	180 7.83 33	7 0.18 1	0	222 5.79 20	171 3.56 15	530 15.12 64	0	--	--	788 1305 881
3- 4-65	--	7.6	3140	203 10.13 33	91 7.48 24	294 12.78 42	7 0.18 1	0	354 5.83 19	96 3.00 7	812 22.50 75	0	--	--	881 1677 578
6-18-65	--	7.3	2960	218 10.88 37	69 5.67 19	296 12.87 44	5 0.13 1	0	435 7.13 24	103 2.14 7	730 20.61 68	0	--	--	578 1643 852
35/15W-13H 2 S 2- 9-65	--	8.7	1140	81 4.04 34	34 2.80 24	107 4.65 40	10 0.26 2	0	379 6.21 53	6 0.12 1	190 5.30 45	0.0 0.10 1	--	--	852 620 531
2-16-65	--	8.5	1650	135 6.74 40	47 3.87 23	136 6.00 36	10 0.26 2	0	359 6.88 35	60 1.25 7	343 9.67 58	0	--	--	531 910 1062
2-18-65	--	8.2	3070	282 14.07 45	87 7.15 23	230 10.00 32	11 0.28 1	0	344 5.64 18	195 4.06 13	764 21.54 69	0	--	--	1062 1736 1062

TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fer- ride Fe	Bleach B	Sili- ca SiO <sub>2</sub>	TDS Evap Residue as CaCO <sub>3</sub> Computed	
L A SAN GABRIEL RIVER HYDRO UNIT U0500																	
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																	
WEST COAST HYDRO SUBAREA U05A2																	
3S/15W-13H 2 S 5-20-65	--	7.5	2580	235 11.73 44	71 5.84 22	200 8.70 33	11 0.28 1	0	350 5.74 22	143 2.98 11	616 17.37 67	0	--	--	--	1448	879
3S/15W-13H 3 S 2-16-65	--	8.1	1790	170 8.48 46	51 4.19 23	126 5.48 30	7 0.18 1	0	330 5.41 30	93 1.94 11	368 10.94 60	0	--	--	--	634	634
3S/15W-13H 4 S 11- 6-64	--	8.3	1894	59 2.94 16	36 2.96 16	286 12.44 66	15 0.38 2	0	448 7.34 39	50 1.04 6	366 10.32 55	0	--	--	--	1260	295
12- 3-64	--	8.7	1170	24 1.20 10	20 1.64 14	205 8.91 74	13 0.33 3	0	472 7.74 65	19 0.40 3	136 3.84 32	0	--	--	--	889	142
1-21-65	--	8.5	976	28 1.40 14	12 0.99 10	170 7.39 73	11 0.28 3	0	478 7.83 77	10 0.21 2	74 2.09 21	0	--	--	--	785	120
3- 3-65	--	7.8	865	24 1.20 13	14 1.15 12	157 6.83 73	8 0.20 2	0	462 7.57 81	7 0.15 2	58 1.64 18	0	--	--	--	732	118
3S/15W-13H 5 S 11- 9-64	--	8.5	1176	102 5.09 43	31 2.55 21	96 4.17 35	6 0.15 1	0	367 6.02 50	46 0.96 8	178 5.02 42	0	--	--	--	827	382
12- 4-64	--	8.4	1310	100 4.99 38	29 2.38 18	128 5.57 42	9 0.23 2	0	348 5.70 44	62 1.29 10	215 6.06 46	0	--	--	--	890	369

TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million reactance value				Mineral constituents in parts per million			
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Barium	Silica
Date sampled				Ca	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>
COASTAL PL OF LA CO HYDR SUBUNIT U05A0															
WEST COAST HYDRO SUBAREA U05A2															
3S/15W-13H 5 S 1-22-65	72	8.5	1240	97 4.84 39	28 2.30 19	116 5.04 41	0.20 ?	0	349 5.72 46	55 1.15 9	196 5.53 45	0	--	--	849 672
3- 3-65	--	8.1	1210	94 4.69 38	33 2.71 22	115 5.00 40	3 0.08 1	0	324 5.31 43	63 1.31 11	200 5.64 46	0	--	--	831 667
3S/15W-13H 6 S 11- 9-64	--	8.4	1577	146 7.29 45	41 3.37 21	120 5.22 33	6 0.15 1	0	317 5.20 33	152 3.16 20	274 7.73 48	0	--	--	1060 895
12- 4-64	--	7.8	1710	162 8.08 46	45 3.70 21	124 5.57 32	7 0.16 1	0	314 5.15 30	176 3.66 21	306 8.63 49	0	--	--	1140 978
1-25-65	--	8.3	1740	164 8.18 47	46 3.78 22	124 5.39 31	7 0.16 1	0	316 5.18 30	176 3.66 21	307 8.66 49	0	--	--	1140 979
3- 4-65	--	7.6	1790	177 8.83 48	47 4.03 22	120 5.22 29	8 0.20 1	0	344 4.82 27	198 4.12 23	326 9.19 51	0	--	--	1170 1023
3S/15W-13H 7 S 11- 5-64	--	8.1	4942	347 17.32 35	108 8.88 18	540 23.48 47	12 0.31 1	0	345 5.65 12	374 7.79 15	1310 30.94 73	0	--	--	3040 2461
12- 3-64	--	8.0	4630	394 19.66 41	117 9.21 19	432 18.78 39	12 0.31 1	0	379 6.21 13	342 7.12 15	1230 34.09 72	0	--	--	2900 2708

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlor- ide Cl	Nit- rate NO <sub>3</sub>	Fluor- ide F	Boron B	Sili- ca SiO <sub>2</sub>	IO <sub>3</sub> Extr. as IO <sub>3</sub> Computed	Tetrahed- rals as CaCO <sub>3</sub>
L A SAN GABRIEL RIVER HYDRO UNIT U0500																	
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																	
WEST COAST HYDRO SUBAREA U05A2																	
3S/15W-13H 7 S 1-21-65	70	7.8	5100	441 22.01 42	129 10.61 20	440 19.13 37	11 0.28 1	0	412 6.75 13	370 7.70 15	1330 37.51 72	0	--	--	--	3130 2924	1632
2- 1-65	--	8.5	5490	480 23.95 42	144 11.84 21	480 20.87 37	13 0.33 1	0	425 6.97 12	403 8.39 15	1480 41.74 73	0	--	--	--	3420 3209	1791
3- 3-65	--	7.3	4900	432 21.56 42	133 10.94 21	430 18.70 36	11 0.28 1	0	406 6.65 13	349 7.27 14	1340 37.79 73	0	--	--	--	3100 2895	1626
3S/15W-13P 1 S 12- 1-64	--	8.2	2280	190 9.48 44	56 4.61 21	172 7.48 34	7 0.18 1	0	252 4.13 19	44 0.92 4	588 16.58 77	0	--	--	--	705 1181	705
3S/15W-13R 3 S 11-18-64	--	7.7	2101	165 8.23 40	62 5.10 25	166 7.22 35	7 0.18 1	0	306 5.02 24	114 2.37 11	476 13.42 64	0	--	--	--	667 1140	667
2- 2-65	--	8.6	2040	166 8.28 39	52 4.28 20	190 8.26 39	6 0.15 1	0	335 5.49 26	118 2.46 12	454 12.80 62	0	--	--	--	629 1151	629
3-12-65	--	8.1	2330	171 8.53 37	62 5.10 22	214 9.30 40	8 0.20 1	0	322 5.28 23	129 2.69 12	540 15.23 66	0	--	--	--	1450 1282	682
3-15-65	--	8.1	2070	161 8.03 39	54 4.44 22	180 7.83 38	7 0.18 1	0	329 5.39 26	105 2.19 11	453 12.77 63	0	--	--	--	1290 1122	624



TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					Mineral constituents in parts per million								
				Calcium Mg	Magne- sium	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- co SiO <sub>2</sub>	I.O.S. Exp 180°C Exp 105°C as Computed Calc	Vis- cosity at 25°C
L A SAN GABRIEL RIVER HYDRO UNIT U0500																	
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																	
WEST COAST HYDRO SUBAREA U05A2																	
3S/15W-13R 6 S 10- 1-64	--	8.2	1670	130 6.49 40	45 3.70 23	139 6.04 37	0.18 1	7	0	335 5.49 34	47 0.98 6	349 9.84 60	--	--	--	882	510
10- 2-64	--	8.2	1130	82 4.09 37	30 2.47 22	102 4.43 40	0.18 2	7	0	335 5.49 48	15 0.31 3	203 5.72 50	--	--	--	604	328
10-21-64	--	8.6	1120	91 4.54 36	29 2.38 19	124 5.39 43	7 0.18 1	7	0	346 5.67 48	7 0.15 1	213 6.01 51	--	--	--	641	346
3S/15W-13R 7 S 10-26-64	--	8.5	973	73 3.64 36	25 2.06 20	100 4.35 43	7 0.18 2	7	0	346 5.67 57	15 0.31 3	142 4.00 40	--	--	--	285	285
10-27-64	--	7.9	3250	338 16.87 48	114 9.38 27	200 8.70 25	17 0.43 1	0	0	339 5.56 16	567 11.80 33	645 18.19 51	--	--	--	532	1314
10-27-64	--	8.3	3400	186 9.28 27	75 6.17 18	416 18.09 53	11 0.28 1	0	0	292 4.79 14	140 2.91 9	924 26.06 77	--	--	--	2048	773
12- 1-64	--	8.1	3200	333 16.62 47	116 9.54 27	200 8.70 25	12 0.31 1	0	0	334 5.47 16	568 11.83 34	632 17.82 51	--	--	--	1896	1309
1-26-65	--	7.6	3310	338 16.87 46	117 9.62 26	220 9.57 26	18 0.46 1	0	0	346 5.67 16	586 12.20 33	660 18.61 51	--	--	--	2025	1326
																2109	

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million percent reactance value					Mineral constituents in parts per million				
				Calcium Mg	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Barium Ba	Silica SiO <sub>2</sub>	Iron Fe	TDS Evaporated as Computed Calc.	
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																		
WEST COAST HYDRO SUBAREA U05A2																		
3S/15W-13R 7 S 3- 4-65	--	7.3	3250	320 15.97 45	128 10.53 29	214 9.30 26	0.05	2	0	328 5.38 15	599 12.47 35	645 18.19 50	--	--	--	1326 2069		
3S/15W-13R 8 S 12- 2-64	--	8.5	988	62 3.09 32	23 1.89 19	104 4.52 47	0.20	8	0	360 5.90 60	10 0.21 2	130 3.67 38	--	--	--	249 514		
1-26-65	--	8.3	931	68 3.39 35	23 1.89 20	95 4.13 43	7	0	0	362 5.93 62	8 0.17 2	124 3.50 36	--	--	--	264 503		
3- 4-65	--	7.7	893	69 3.44 39	23 1.89 21	77 3.35 38	7	0	0	342 5.61 63	2 0.04 7	115 3.24 36	--	--	--	267 461		
3S/15W-13R 9 S 12- 2-64	--	7.9	11400	754 37.62 29	275 22.62 18	1560 67.83 53	20	0	0	521 8.54 7	1012 21.07 16	3500 98.70 77	--	--	--	3014 7377		
1-25-65	--	7.3	12200	800 39.92 30	312 25.66 19	1570 68.26 51	13	0	0	520 8.52 6	1070 22.28 17	3640 102.65 77	--	--	--	3282 7661		
3- 4-65	--	7.1	11700	800 39.92 30	318 26.15 20	1570 66.09 50	28	0	0	514 8.42 6	1040 21.65 16	3630 102.37 77	--	--	--	3306 7589		
3S/15W-24K 1 S 11-24-64	--	8.2	1618	93 4.64 30	29 2.38 15	196 8.52 55	2	0	0	173 2.84 18	136 2.83 18	316 8.91 57	--	--	--	351 916		

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million reactance value					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlor- ide Cl	Fluor- ide F	Trace Fe, Mn, Zn, etc.	Iron Fe	Copper Cu	Silver Ag	Mercury Hg	Lead Pb
COASTAL PL OF LA CO HYDR SUBUNIT U05A0 WEST COAST HYDRO SUBAREA U05A2																		
3S/15W-24K 1 S 7-13-65	--	8.1	1710	43 4.64	28 2.30	230 10.00	0.15	6	173 2.04	179 3.73	342 9.66	--	30 0.48	--	--	--	--	347
3S/15W-24M 1 S 6-10-65	--	8.1	1410	69 3.44	23 1.89	210 9.13	3	0	142 2.03	255 5.31	224 6.32	--	40 0.65	--	--	--	--	267
3S/15W-24N 1 S 6-11-65	--	8.4	1230	24 0.65	13 0.16	63 2.63	1	0	16 2.12	36 8.12	43 10.4	--	0	--	--	--	--	11
3S/15W-24P 1 S 11-30-64	69	8.5	2760	10 0.50	27 2.22	532 23.13	14	0	151 2.47	349 8.10	557 15.71	--	0	--	--	--	--	136
3S/15W-24P 2 S 12-14-64	--	8.3	1370	106 5.29	36 2.80	140 6.09	4	0	202 3.31	233 4.85	170 5.36	--	40 0.75	--	--	--	--	405
6-11-65	--	8.3	1360	37 1.09	20 2.63	43 6.17	1	0	23 3.79	34 5.00	38 10.8	--	50 0.81	--	--	--	--	404
3S/15W-25A 3 S 10-26-64	--	8.5	1259	49 2.45	12 0.99	215 9.35	5	0	155 2.59	272 5.60	152 4.29	--	0	--	--	--	--	173
3S/15W-25B 1 S 2-17-65	68	8.4	1670	57 2.84	25 2.06	266 11.57	4	0	173 2.84	292 6.08	244 6.86	--	41 0.66	--	--	--	--	245
				17	12	70	1		17	37	42							1014

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				Mineral constituents in parts per million					
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- co SiO <sub>2</sub>	TDS Evap 180°C Evap 105°C as CaCO <sub>3</sub>	
L A SAN GABRIEL RIVER HYDRO UNIT U0500																	
COASTAL PL OF LA CO HYDR. SUBUNIT U05A0																	
WEST COAST HYDRO SUBAREA U05A2																	
3S/15W-25B 2 S 12-11-64	--	8.5	1630	9 0.45 3	10 0.82 5	330 14.35 91	0.10 1	4	0	167 2.74 18	332 6.91 44	212 5.98 38	--	--	--	979	64
5-20-65	--	8.2	1550	10 0.50 3	6 0.49 3	314 13.65 92	0.20 1	8	0	160 2.62 17	334 6.95 46	193 5.44 36	--	--	--	944	50
3S/15W-25B 3 S 12-15-64	--	8.5	1150	8 0.40 4	11 0.90 8	225 9.78 86	0.23 2	9	0	150 2.46 22	291 6.06 54	95 2.68 24	--	--	--	713	65
3S/15W-25C 3 S 10- 7-64	--	7.9	1140	26 3.09 26	26 18	149 6.48 55	0.13 1	5	0	131 2.15 19	304 6.33 55	110 3.10 27	--	--	--	720	262
3S/15W-25C 4 S 12-15-64	--	8.6	4420	7 0.35 1	30 2.47 6	900 39.13 92	0.59 1	23	0	152 2.49 6	438 9.12 21	1100 31.02 73	--	--	--	2573	141
5-18-65	--	8.3	4950	12 0.60 1	32 2.63 6	1000 43.48 92	0.51 1	20	0	150 2.46 5	451 9.39 20	1260 35.53 75	--	--	--	2852	162
3S/15W-25D 1 S 10- 6-64	--	8.4	10100	57 2.84 3	142 11.68 11	2080 90.44 85	0.65 2	65	0	160 2.62 2	778 16.20 15	3080 86.86 82	--	--	--	6281	727
4- 6-65	68	8.2	8730	45 2.25 2	120 9.87 11	1760 76.52 85	0.58 2	58	0	162 2.66 3	701 14.59 16	2590 73.04 81	--	--	--	5354	606

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reactance value				Mineral constituents in parts per million			
				Calcium mg	Magne- sium	Sodium Na	Potas- sium	Carbon- ate	Bicar- bonate	Sulfate	Chlor- ide	Flu- oride	Boreon	Silica	Total Hardness at 105°C
Date sampled				Ca	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	F	B	SiO <sub>2</sub>	Computed Total
COASTAL PL OF LA CO HYDR SUBUNIT U05A0															
WEST COAST HYDRO SUBAREA U05A2															
35/15W-25D 2 S 12- 2-64	68	8.2	35200	288 14.37	885 72.78	7800 339.14	216 5.52	0	145 2.38	2140 44.55	13900 391.98	--	--	--	4361
35/15W-25F 1 S 12-16-64	--	8.6	1220	17 0.85	12 0.99	230 10.00	3 0.08	0	148 2.43	312 6.50	109 3.07	--	--	--	92
35/15W-25G 6 S 12- 4-64	63	8.4	1090	63 3.14	22 1.81	144 6.26	5 0.13	0	130 2.13	309 6.43	98 2.76	--	--	--	248
5-18-65	--	7.4	1130	74 3.69	26 2.06	133 5.78	4 0.10	0	121 1.98	318 6.62	103 2.90	--	--	--	288
35/15W-25G 8 S 1-14-65	--	8.7	1190	2 0.10	1 0.08	255 11.09	7 0.18	0	157 2.57	294 6.12	97 2.74	--	--	--	9
35/15W-25G10 S 6-21-65	--	8.0	1120	29 1.45	30 2.47	170 7.39	5 0.13	0	137 2.25	309 6.43	100 2.82	--	--	--	196
35/15W-25H 3 S 12- 8-64	--	8.5	1480	116 5.79	26 2.14	160 6.96	7 0.18	0	163 2.67	234 4.87	242 6.82	--	--	--	397
5-19-65	--	7.7	1480	117 5.84	27 2.22	157 6.83	6 0.15	0	163 2.67	250 5.21	231 6.51	--	--	--	403



TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reactance value				Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlor- ide Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	TDS Evap 180°C Evap 105°C Computed
COASTAL PL OF LA CO HYDR SUBUNIT 005A WEST COAST HYDR SUBAREA 005A2																
3S/15W-25L 1 S 12- 3-64	68	8.5	3450	6 0.30	8 0.66	744 32.35	23 0.59	0	198 3.25	540 11.24	684 19.29	--	--	--	--	48
6-21-65	--	8.4	3270	4 0.20	7 0.58	700 30.44	23 0.59	0	194 3.18	510 10.62	644 18.16	--	--	--	--	39
3S/15W-25L 2 S 3- 2-65	70	8.0	1520	32 1.60	23 1.89	240 10.44	18 0.46	0	275 4.51	75 1.56	301 8.49	--	--	--	--	175
3S/15W-25M 1 S 12-10-64	--	8.4	17100	94 4.69	309 25.41	3540 153.92	126 3.22	0	202 3.31	1060 22.07	5730 161.59	--	--	--	824	1506
3S/15W-25P 1 S 10-13-64	--	8.2	6430	105 5.24	158 12.99	1000 43.48	57 1.46	0	173 2.84	461 9.60	1820 51.32	--	--	--	10983	912
2-15-65	60	8.1	8120	114 5.69	164 15.13	1380 60.00	57 1.46	0	170 2.79	537 11.18	2440 68.81	--	--	--	3886	1042
6-22-65	--	8.1	8080	150 7.49	182 14.97	1360 59.13	65 1.66	0	173 2.84	535 11.14	2500 70.50	--	--	--	4808	1124
3S/15W-25P 2 S 2-16-65	68	8.3	41300	360 17.896	1140 23.75	9600 417.41	316 8.08	0	154 2.52	2540 56.88	17100 482.22	--	--	--	31132	5590

TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent				Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Fluoride	Boron	Silica	Iron	Hardness
Date sampled				Co	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	F	B	SiO <sub>2</sub>	NO <sub>3</sub>	Evaporitic hardness
COASTAL PL OF LA CO HYDR SUBUNIT WEST COAST HYDR SUBAREA																
LA SAN GABRIEL RIVER MOUND UNIT																
3S/15W-25P 2 S 7-15-65	--	8.0	43100	352 17.56	1128 92.77	9400 408.71	408 10.43	0	152 2.49	2480 91.63	17040 480.93	--	--	--	0	5921 5088
3S/15W-25Q 2 S 6-23-65	--	7.1	11800	34 4.69	31 2.53	1000 4.70	5 0.13	0	112 1.84	344 7.16	112 3.13	--	--	--	0	362 744
3S/15W-25Q 3 S 12- 4-64	7.0	7.9	56100	346 17.27	927 76.24	8200 356.54	225 9.83	0	177 2.90	2140 44.55	14600 411.72	--	--	--	0	4679 26528
6-24-65	--	7.8	37900	160 17.96	683 76.73	8200 356.54	204 9.22	0	183 3.00	2190 49.00	14700 414.94	--	--	--	0	4738 26677
3S/15W-25Q 4 S 6-23-65	--	7.9	1230	103 5.14	35 2.88	120 5.22	6 0.15	0	178 2.92	340 7.08	110 3.10	--	--	--	0	401 807
3S/15W-25R 2 S 10-13-64	--	8.2	6430	105 5.24	158 12.99	1000 43.48	57 1.46	0	173 2.84	461 9.60	1820 51.37	--	--	--	0.0	912 3686
3-12-65	6.8	8.4	1750	8 0.15	27 0.25	266 11.57	5 0.13	0	160 2.60	315 6.96	108 3.03	--	--	--	0	20 779
3S/15W-26R 4 S 3-17-65	7.0	8.1	1130	53 2.64	16 2.88	138 6.00	9 0.23	0	133 2.16	316 6.96	106 2.96	--	--	--	0	278 727

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million reactance value					Mineral constituents in parts per million				
				Calcium Co	Magne-sium Mg	Sodium Na	Potas-sium K	Carbon-ate CO <sub>3</sub>	Bicar-bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo-ride Cl	N Nitrate NO <sub>3</sub>	F Fluoride F	Boron B	Sol-ids S.O. <sub>2</sub>	Total I.O.S. Evap. 105°C hardness as CaCO <sub>3</sub>		
L A SAN GABRIEL RIVER HYDRO UNIT U0500																		
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																		
WEST COAST HYDRO SUBAREA U05A2																		
35/15W-36A 2 S 12- 9-64	--	8.4	1200	90 4.49 37	20 1.64 13	136 5.91 48	7 0.18 1	0	185 3.03 25	236 4.91 40	152 4.29 35	0	--	--	--	732	307	
35/15W-36A 3 S 4-27-65	--	8.0	1140	90 4.49 36	31 2.55 21	120 5.22 42	5 0.13 1	0	146 2.39 20	326 6.79 56	106 2.99 25	0	--	--	--	750	352	
5-25-65	--	8.0	1150	92 4.59 38	31 2.55 21	112 4.87 40	5 0.13 1	0	144 2.36 19	332 6.91 56	108 3.05 25	0	--	--	--	751	357	
5-25-65	--	7.8	1150	93 4.64 38	30 2.47 20	112 4.87 40	5 0.13 1	0	149 2.44 20	335 6.97 56	109 3.07 25	0	--	--	--	757	356	
5-25-65	--	8.1	1150	92 4.59 38	31 2.55 21	108 4.70 39	5 0.13 1	0	146 2.39 19	332 6.91 56	108 3.05 25	0	--	--	--	748	357	
6-28-65	--	8.0	1220	94 4.69 36	31 2.55 20	131 5.70 44	5 0.13 1	0	143 2.34 18	350 7.29 56	120 3.58 26	0	--	--	--	801	362	
4S/12W-30R 1 S 7-23-65	--	8.6	2940	70 3.49 12	38 5.13 11	510 22.17 76	11 0.28 1	34 1.13 4	451 7.39 25	5 0.10 1	730 20.59 70	5 0.08	--	--	--	1625	331	
4S/12W-31M 1 S 7-16-65	--	8.5	2270	29 1.45 6	35 2.68 12	430 18.70 80	14 0.36 2	0	682 11.18 48	11 0.23 1	418 11.79 51	0	--	--	--	1272	217	

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million				Mineral constituents in parts per million					
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	Total Hardness CaCO <sub>3</sub>	
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																	
WEST COAST HYDRO SUBAREA U05A2																	
4S/12W-34N 1 S 10-5-64	--	8.7	312	7 0.35 11	1 0.08 2	66 2.87 66	1 0.03 1	0	169 2.77 84	0	0	10 0.51 16	--	--	--	22	
4S/13W-10E 3 S 10-26-64	71	8.2	680	62 3.09 43	16 1.32 18	63 2.74 38	3 0.08 1	0	255 4.18 58	87 1.81 25	45 1.27 17	0.0	0.1	0.17	--	176 416 221	
4-6-65	71	7.9	704	57 2.84 41	17 1.40 20	60 2.61 38	4 0.10 1	0	253 4.15 58	80 1.67 23	48 1.35 19	0	0.4	0.10	--	402 407 212	
4S/13W-15C 1 S 10-28-64	77	8.4	421	26 1.30 30	9 0.74 17	51 2.22 51	3 0.08 2	8 0.27 6	168 2.75 64	31 0.65 15	22 0.62 14	2.0 0.03 1	0.2	0.08	25	260 260 132	
4S/13W-22E 1 S 10-28-64	80	7.7	390	23 1.15 27	6 0.49 12	58 2.52 59	3 0.08 2	0	206 3.38 81	1 0.02 3	27 0.76 18	0.0	0.3	0.12	--	280 220 62	
4S/13W-22K 5 S 10-28-64	--	8.1	360	20 1.00 26	4 0.33 3	56 2.43 64	2 0.05 1	0	183 3.00 77	5 0.10 3	29 0.82 21	0.0	0.2	0.47	--	254 207 67	
4-6-65	71	8.1	647	27 1.35 23	12 0.99 17	75 3.26 56	7 0.18 3	0	158 2.26 39	0	0	0	0.4	0.09	--	365 314 117	
4S/13W-23A 2 S 7-20-65	--	8.6	4590	160 7.98 17	64 5.26 11	800 34.78 72	10 0.26 1	49 1.63 3	515 8.44 17	649 13.51 27	916 25.83 54	0	--	--	--	663 4901	

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent reactance value					Mineral constituents in parts per million				
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	TDS Exop 180°C as Computed	Hardness as CaCO <sub>3</sub>	
COASTAL PL OF LA CO HYDR SUBUNIT U05AU U05AZ L A SAN GABRIEL RIVER HYDRO UNIT U0500																		
4S/13W-25F 1 S 7-20-65	--	8.5	1930	70 3.49 18	45 3.70 19	284 12.35 62	11 0.28 1	0	386 6.33 32	137 2.85 14	373 10.52 53	0	--	--	--	1110	360	
4S/13W-26A 2 S 7-26-65	--	8.6	741	29 1.45 19	7 0.58 8	128 5.57 73	3 0.08 1	0	276 4.52 60	0	106 2.99 40	0	--	--	--	409	102	
4S/13W-26A 3 S 7-26-65	--	8.5	516	31 1.55 28	15 1.23 22	62 2.70 49	3 0.08 1	0	204 3.34 61	62 1.29 24	29 0.82 15	0	--	--	--	302	139	
4S/13W-26A 4 S 7-26-65	--	7.2	4810	433 21.61 41	134 11.02 21	460 20.00 38	15 0.38 1	0	447 7.33 14	612 12.74 24	1140 32.15 62	0	--	--	--	1633	3014	
4S/13W-26F 5 S 7-19-65	--	8.6	536	14 0.70 12	4 0.33 6	105 4.57 80	3 0.08 1	0	232 3.80 67	6 0.12 2	61 1.72 30	0	--	--	--	307	52	
4S/13W-26F 6 S 7-19-65	--	8.4	417	12 0.60 14	4 0.33 8	77 3.35 76	4 0.10 2	0	200 3.28 75	8 0.17 4	33 0.93 21	0	--	--	--	236	47	
4S/13W-26F 7 S 7-19-65	--	7.7	5110	424 21.16 41	105 8.64 17	496 21.57 42	20 0.51 1	0	328 5.38 11	211 4.39 9	1470 41.45 81	0	--	--	--	1491	2887	
4S/13W-26R 1 S 6-23-65	--	8.7	1110	17 0.85 7	12 0.99 8	250 10.87 83	12 0.31 2	64 2.13 16	333 5.46 41	10 0.21 2	198 5.58 42	0	--	--	--	727	92	



TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				Mineral constituents in parts per million					
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	Total Dissolved Solids as CaCO <sub>3</sub>	
COASTAL PL OF LA CO HYDR SUBUNIT U0540																	
WEST COAST HYDRO SUBAREA U0542																	
45/13W-26R 2 S 6-23-65	--	8.5	526	14 0.70 13	5 0.41 7	98 4.26 78	4 0.10	0	221 3.62 68	0	60 1.69 32	--	--	--	--	290	56
45/13W-26R 3 S 6-23-65	--	8.1	8560	382 19.06 23	214 17.60 21	1040 45.22 55	25 0.64 1	0	362 6.26 7	89 1.85 2	2650 60.37 91	0	--	--	--	1634	1634
45/13W-27A 2 S 10- 6-64	81	8.1	3830	276 13.77	73 6.00	--	--	0	359 5.88	--	968 27.30	--	--	--	--	4788	989
17- 1-64	63	8.1	3880	282 14.07 36	74 6.09 16	428 18.61 48	11 0.28 1	0	344 5.64 14	273 5.68 14	1000 28.20 71	0	--	--	--	1009	1009
1-17-65	66	7.9	3970	288 14.37 36	78 6.41 16	428 18.61 47	12 0.31 1	0	367 6.02 15	267 5.56 14	1010 28.48 71	0	--	--	--	1040	1040
2- 2-65	63	7.8	3880	258 12.87 32	97 7.08 22	428 18.61 47	11 0.28 1	0	370 6.06 15	290 6.04 15	1000 28.20 70	0	--	--	--	1043	1043
3- 2-65	64	7.6	3940	276 13.77 35	84 6.74 17	428 18.61 47	10 0.28 1	0	296 4.85 12	272 5.68 14	1020 28.76 73	0	--	--	--	1026	1026
4- 6-65	64	7.9	3940	296 14.77 37	77 6.33 16	428 18.61 47	12 0.31 1	0	326 5.34 13	275 5.73 14	1030 29.05 72	0	--	--	--	1056	1056

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent				Mineral constituents in parts per million				Total hardness as CaCO <sub>3</sub>		
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fuo- ride F	Boron B	Sil- ica SiO <sub>2</sub>		IDS Exp. Bore Co S O <sub>2</sub>	
L A SAN GABRIEL RIVER HYDRO UNIT U0500																		
COASTAL PL OF LA CO HYDR SUBUNIT U05A0				U05A2														
WEST COAST HYDRO SUBAREA																		
4S/13W-27A 2 S 5-11-65	68	7.7	3970	309 15.42 38	77 6.33 16	430 18.70 46	13 0.33 1	0	367 6.02 15	265 5.52 13	1050 29.61 72	0	--	--	--	--	2324	1088
6- 2-65	--	7.8	4030	310 15.47 38	78 6.41 16	428 18.61 46	12 0.31 1	0	367 6.02 15	273 5.68 14	1050 29.61 72	0	--	--	--	--	2331	1095
7- 7-65	71	7.8	3910	284 14.17 36	74 6.09 16	428 18.61 47	13 0.33 1	0	255 4.18 11	270 5.62 14	1050 29.61 75	0	--	--	--	--	2244	1014
8- 2-65	68	7.9	4030	304 15.17 37	78 6.41 16	440 19.13 47	12 0.31 1	0	359 5.88 14	257 5.35 13	1050 29.61 73	0	--	--	--	--	2318	1080
4S/13W-27E 1 S 6-24-65	--	8.5	427	20 1.00 21	5 0.41 9	74 3.22 68	3 0.08 2	0	228 3.74 83	0 0 0	27 0.76 17	0	--	--	--	--	241	71
4S/13W-27E 2 S 6-24-65	--	8.3	3550	236 11.78 34	72 5.92 17	392 17.04 49	12 0.31 1	0	222 3.64 10	64 1.35 4	1060 29.61 86	0	--	--	--	--	1945	886
4S/13W-27K 2 S 7-21-65	--	8.7	756	24 1.20 16	7 0.58 8	128 5.57 75	4 0.10 1	0	228 3.74 51	3 0.06 1	126 3.55 48	0	--	--	--	--	404	89
4S/13W-27M 3 S 10-28-64	--	7.6	380	22 1.10 26	2 0.16 4	67 2.91 69	2 0.05 1	0	197 3.23 76	2 0.04 1	34 0.96 23	0.0	0.6	0.20	--	--	234 227	63

TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million reactance value				Mineral constituents in parts per million				
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Flu- ride F	Boron B	SiO <sub>2</sub>	TDS Exap IBPC Exap O3C as CaCO <sub>3</sub>
L A SAN GABRIEL RIVER HYDRO UNIT U0500																
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																
WEST COAST HYDRO SUBAREA U05A2																
4S/13W-27M 3 S 3-29-65	80	8.2	415	21 1.05	3 0.25	70 3.04	2 0.05	0	209 3.43	0	33 0.93	0	0.4	0.14	--	216
				24	6	69	1		79		21					232
4S/13W-27N 1 S 10-28-64	--	7.6	440	17 0.85	2 0.16	88 3.83	3 0.08	0	211 3.46	2 0.04	50 1.41	0	0.8	0.25	--	286
				17	3	78	2		70	1	29					267
3-29-65	80	7.6	468	17 0.85	3 0.25	92 4.00	3 0.08	0	217 3.56	2 0.04	51 1.44	0	0.4	0.21	--	261
				16	5	77	2		71	1	29					275
4S/13W-27Q 1 S 7-21-65	--	8.3	31000	512 25.55	788 64.81	6130 266.53	143 3.66	0	377 6.18	1570 32.69	11500 324.30	0	--	--	--	4522
				7	18	74	1		2	9	89					20828
4S/13W-30H 2 S 6-25-65	--	8.5	424	22 1.10	8 0.66	60 2.61	4 0.10	0	224 3.67	4 0.08	26 0.73	0	--	--	--	86
				25	15	58	2		82	2	16					234
4S/13W-30H 3 S 12- 2-64	--	7.8	475	20 1.00	8 0.66	79 3.43	--	--	202 3.31	29 0.60	41 1.16	--	--	--	--	33
4S/13W-30H 4 S 6-25-65	--	8.5	419	20 1.00	8 0.66	62 2.60	4 0.10	0	223 3.65	0	26 0.73	0	--	--	--	83
				22	15	61	2		82		16					232
4S/13W-31N 1 S 7-13-65	--	8.5	512	14 0.70	6 0.66	95 4.13	5 0.13	0	275 4.51	7 0.15	35 0.99	0	--	--	--	66
				12	12	73	2		80	3	16					299

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Ferric oxide
Date sampled				Ca	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F
L A SAN GABRIEL RIVER HYDRO UNIT U0500													
COASTAL PL OF LA CO HYDR SUBUNIT U05A0													
WEST COAST HYDRO SUBAREA U05A2													
4S/14W- 1F 2 S 10-28-64	--	7.4	530	45 2.25 37	13 1.07 17	62 2.70 44	4 0.10 2	0	193 3.16 53	79 1.64 28	41 1.16 19	0.0	0.2
3-30-65	--	8.0	530	44 2.20 37	15 1.23 21	56 2.43 41	3 0.08 1	0	239 3.92 67	43 0.90 15	36 1.02 17	0.0	0.2
4S/14W- 3L 2 S 10-28-64	--	7.9	600	56 2.79 43	15 1.23 19	54 2.35 36	4 0.10 2	0	234 3.84 59	37 0.77 12	66 1.86 29	0.0	0.4
3-20-65	--	8.2	620	52 2.59 39	19 1.56 24	54 2.55 36	4 0.10 2	0	246 4.03 62	29 0.60 9	64 1.80 28	1 0.02	0.2
4S/14W- 5F 1 S 3- 9-65	--	8.2	13800	984 49.10 33	352 28.95 19	1660 72.18 48	30 0.77 1	0	221 3.62 2	580 12.08 8	480 137.62 90	0	--
5-25-65	--	7.6	13800	966 48.20 31	350 28.78 19	1760 76.52 50	31 0.79 1	0	233 3.62 2	638 13.26 9	480 137.62 90	0	--
7-20-65	--	7.6	15900	1070 53.39 31	399 32.81 19	2000 86.96 50	40 1.02 1	0	223 3.65 2	687 14.30 8	550 157.64 90	10 0.16	--
4S/14W- 5N 7 S 1-27-65	--	7.8	34500	354 17.66 4	811 66.70 16	7325 318.49 79	105 2.68 1	0	168 2.675 1	2000 41.64 10	12900 363.78 89	0	--

TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million reactivity value				Mineral constituents in parts per million					
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	Trace Elements as Computed	
COASTAL PL OF LA CO HYDR SUBUNIT U05A0 WEST COAST HYDRO SUBAREA U05A2 L A SAN GABRIEL RIVER HYDRO UNIT U0500																	
4S/14W-5N 7 S 3-18-65	64	8.2	8900	70 3.49	162 13.32	1760 16.22	23 0.57	0	163 2.67	667 13.87	2720 76.70	0	--	--	--	841	
4S/14W-5N 8 S 2-15-65	--	7.6	43100	560 27.94	1230 101.16	10000 434.80	110 2.81	0	162 2.98	2630 54.76	10200 513.24	0	--	--	--	6460	
3-19-65	--	7.6	42400	560 27.94	1230 101.16	10000 434.80	110 2.81	0	162 2.98	2630 54.76	10200 513.24	0	--	--	--	6337	
4S/14W-5N10 S 2-27-65	--	7.7	14200	179 3.93	333 27.37	2730 118.70	31 0.79	0	157 2.57	926 19.28	4730 133.37	0	--	--	--	1817	
4S/14W-5N12 S 12-26-64	--	7.8	24200	221 11.03	511 42.02	5000 217.40	50 1.28	0	162 2.66	1390 28.74	8570 241.67	0	--	--	--	2655	
4S/14W-5N13 S 12-29-64	--	8.0	23600	526 26.29	565 46.59	4400 191.51	33 0.84	0	218 3.57	1190 24.78	8410 237.16	0	--	--	--	3643	
4S/14W-6B 4 S 11-20-64	--	7.5	37313	611 30.49	956 78.77	7840 340.08	124 3.17	0	285 4.67	1960 40.81	14500 408.70	0	--	--	--	5468	
4S/14W-6B 5 S 11-8-64	--	7.5	34722	584 29.14	967 71.47	7160 311.32	100 2.56	0	215 3.52	1930 40.18	13200 372.24	0	--	--	--	5035	
				7	17	75	1		1	10	89					21940	



TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					Mineral constituents in parts per million							
				Calcium	Magne- sium	Sodium	Potas- sium	Carbon- ate	Bicar- bonate	Sulfate	Chlo- ride	Ni- trate	Flu- oride	Bar- ium	Sul- fur dioxide	Total hardness as CaCO <sub>3</sub>
Date sampled				Co	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SO <sub>2</sub>	ppm
L A SAN GABRIEL RIVER HYDRO UNIT U0500																
U05A2																
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																
WEST COAST HYDRO SUBAREA																
4S/14W- 6F 1 S 3- 8-65	--	8.0	28100	918 45.81 14	727 59.79 18	5250 228.27 68	45 1.15	0	310 5.08 2	1370 20.52 9	10640 300.05 90	0	--	--	--	5284
4S/14W- 6G 2 S 11-12-64	--	8.4	1377	106 5.29 39	24 1.97 14	142 6.17 45	8 0.20 1	0	241 3.95 29	90 1.87 14	273 7.70 57	0	--	--	--	363
3-24-65	--	8.2	943	64 3.19 33	15 1.23 13	115 5.00 52	5 0.13 1	0	256 4.20 44	61 1.27 13	143 4.03 42	0	--	--	--	221
4S/14W- 6G 4 S 3- 5-65	--	8.2	11200	70 3.49 3	176 14.47 12	2250 97.83 84	51 1.30 1	0	182 2.98 3	761 15.84 13	3520 99.26 84	0	--	--	--	899
7-26-65	--	8.4	1260	79 3.94 29	34 2.80 21	147 6.39 48	12 0.31 2	0	149 2.44 18	351 7.31 55	124 3.50 26	0	--	--	--	337
4S/14W- 6G 5 S 6- 3-65	--	7.8	29100	896 44.71 13	761 62.58 18	5630 244.79 69	85 2.17 1	0	296 4.85 1	1510 31.44 9	11300 318.66 90	0	--	--	--	5369
4S/14W- 6H 1 S 3- 8-65	--	8.0	28100	918 45.81 14	727 59.79 18	5250 228.27 68	45 1.15	0	310 5.08 2	1370 20.52 9	10640 300.05 90	0	--	--	--	5284
5-24-65	--	7.6	30500	1150 57.39 15	839 69.00 18	6000 260.88 67	70 1.79	0	307 5.03 1	1610 33.52 9	12500 352.20 90	0	--	--	--	6325
																22320

TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million				Mineral constituents in parts per million					
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	Total dissolved solids ppm	
COASTAL PL OF LA CO HYDR SUBUNIT U05AU WEST COAST HYDRO SUBAREA U05A2																	
45/14W- 6H 1 S 7-22-65	--	8.0	34000	1010 50.40 12	854 70.23 17	6640 288.71 70	80 2.00	0	279 4.57 1	1790 37.27 y	13200 372.24 y	0	--	--	--	6036	
45/14W- 6J11 S 2-25-65	--	7.3	28600	510 25.45 7	680 55.92 16	5880 255.66 75	93 2.38 1	0	179 2.93 1	1640 34.14 10	10700 301.74 89	0	--	--	--	4072	
45/14W- 6L 1 S 11-13-64	--	8.0	34014	1121 55.94 14	875 71.96 17	6480 261.75 68	96 2.40 1	0	195 3.20 1	1811 37.71 y	13240 373.37 90	0	--	--	--	6400	
3-24-65	--	7.9	31000	1150 56.39 14	885 72.62 18	6200 269.58 67	68 1.74	0	196 3.21 1	1740 36.23 y	12800 360.96 90	0	--	--	--	6456	
5- 4-65	--	8.1	31400	1096 54.39 14	857 70.48 18	6080 264.36 68	90 2.30 1	0	198 3.25 1	1680 34.98 y	12500 352.50 90	0	--	--	--	6248	
45/14W- 7C 3 S 11-16-64	--	7.9	41667	506 25.25 5	1103 90.71 17	9120 396.54 76	280 7.16 1	0	182 2.98 1	2321 48.32 y	16648 469.47 90	0	--	--	--	5803	
5- 5-65	--	8.0	41000	516 25.75 5	1140 93.75 18	9200 400.02 76	252 6.44 1	0	182 2.98 1	2330 48.51 y	16800 473.76 90	0	--	--	--	5980	
45/14W- 7D 1 S 11-16-64	--	8.0	45871	382 19.06 3	1218 100.17 17	10700 465.24 78	400 10.23 2	0	200 3.28 1	2646 55.09 y	18932 533.88 90	0	--	--	--	5966	
																34376	

TABLE E-1

[illegible]

TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million re-actance value					Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	3.5% Evap 180°C	Excess 105°C	Computer
Date sampled				Ca	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>			
COASTAL PL OF LA CO HYDR SUBUNIT WEST COAST HYDRO SUBAREA U05A2																		
4S/14W-7K 2 S 6-7-65	--	7.9	43800	424 21.16	1260 103.62	10400 452.19	332 8.49	0	146 2.39	2720 56.63	18800 530.16	0	--	--	--	--	3400	6244
4S/14W-7P 2 S 11-19-64	--	7.9	45454	446 22.26	1190 97.87	10200 443.50	365 9.33	0	144 2.36	2600 54.13	18300 516.06	0	--	--	--	--	3172	6011
6-11-65	--	8.2	43000	592 29.54	1140 93.75	9000 391.32	120 3.07	0	293 4.80	2230 46.43	16700 470.94	0	--	--	--	--	27926	6167
4S/14W-7P 3 S 11-19-64	--	8.2	41667	576 28.74	1100 90.46	9100 395.67	130 3.32	0	229 3.75	2260 47.05	16500 465.30	0	--	--	--	--	27779	5765
6-11-65	--	8.0	43500	443 22.11	1240 101.48	10200 443.50	344 8.60	0	127 2.08	2670 55.59	18600 524.54	0	--	--	--	--	6209	6209
4S/14W-8B 1 S 10-16-64	--	7.1	36200	784 39.12	866 71.22	7680 333.93	60 1.53	0	137 2.25	2040 42.47	14000 394.80	0	--	--	--	--	33559	5581
10-16-64	--	7.6	32500	679 33.68	712 58.55	6393 277.40	59 1.41	0	128 2.10	1600 37.48	12940 339.53	0	--	--	--	--	25497	4615
11-19-64	--	8.0	41174	593 29.64	553 45.48	6000 266.86	63 1.61	0	152 2.49	1510 31.66	9800 276.36	--	--	--	--	--	21725	2408

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Baron B	Sili- ca SiO <sub>2</sub>	T.D.S. Evap 105°C as Computed CaCO <sub>3</sub>	Total Hardness as CaCO <sub>3</sub>	
COASTAL PL OF LA CO HYDR SUBUNIT U05AU WEST COAST HYDRO SUBAREA U05AZ																		
4S/14W- 8B 1 S 2-10-65	--	7.9	8180	104 5.19 6	91 7.48 9	1620 70.44 84	10 0.26	0	153 2.51 3	621 12.93 16	2400 67.68 81	2.00 0.03	--	--	--	4923	634	
3-17-65	--	7.8	5340	63 3.14 6	50 4.11 8	1065 46.31 86	8 0.20	0	148 2.43 5	492 10.24 19	1460 41.17 76	0	--	--	--	3211	363	
6- 1-65	--	8.3	2630	30 1.50 6	19 1.56 6	510 22.17 87	6 0.15 1	0	153 2.51 10	386 8.04 31	533 15.03 59	0	--	--	--	1559	153	
7-21-65	--	8.2	2510	35 1.75 7	24 1.97 8	470 20.44 84	5 0.13 1	0	149 2.44 10	380 7.91 32	508 14.33 58	0	--	--	--	1495	186	
4S/14W- 8D 2 S 10-27-64	--	7.6	45454	436 21.76 4	1130 92.93 17	10000 434.80 78	180 4.60 1	0	160 2.62 1	2600 54.13 10	17700 499.14 90	0	--	--	--	32125	5739	
12-17-64	--	8.4	32500	290 14.47 4	678 55.76 15	7080 307.84 81	92 2.35 1	0	192 3.15 1	1860 38.73 10	12000 338.40 89	0	--	--	--	22094	3514	
1-26-65	--	8.3	12100	41 2.05 2	102 8.39 7	2600 113.05 91	39 1.00 1	0	181 2.97 2	872 18.16 15	3680 103.78 83	0	--	--	--	7423	522	
3-23-65	67	8.2	3400	7 0.35 1	12 0.99 3	728 31.65 95	11 0.28 1	0	162 2.66 8	441 9.18 28	756 21.32 64	0	--	--	--	2035	67	



TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					Mineral constituents in parts per million									
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	Total hardness Evap 180°C Evap 105°C as CaCO <sub>3</sub>		
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																		
WEST COAST HYDRO SUBAREA U05A2																		
4S/14W- 8D 2 S 7- 2-65	--	8.6	1470	4 0.20	2 0.16	314 13.65	6 0.15	0	154 2.52	342 7.12	164 4.62	0	--	--	--	908	18	
4S/14W- 8D15 S 10-23-64	--	8.3	2780	110 5.49	47 3.87	396 17.22	11 0.28	0	205 3.36	279 5.81	626 17.65	0	--	--	--	468	468	
11-16-64	--	8.3	2155	77 3.84	33 2.71	326 14.17	11 0.28	0	181 2.97	291 6.06	425 11.99	0	--	--	--	328	328	
4S/14W- 8D16 S 10-19-64	--	7.7	36200	464 23.15	888 73.03	7720 335.67	72 1.84	0	169 2.77	2080 43.31	13900 391.98	0	--	--	--	4813	4813	
11-19-64	--	8.5	44643	29 1.45	63 5.18	850 36.96	15 0.38	0	145 2.38	449 9.35	1150 31.87	0	--	--	--	332	332	
3-12-65	--	8.1	1240	3 72	12 35	84 138	1 1	0	5 134	21 332	73 126	1 1	--	--	--	324	324	
4S/14W- 8D17 S 10-19-64	--	8.0	9500	28 567	23 18.67	600 48.70	0.15 0.72	0	2.20 3.72	6.91 7.89	3.55 86.57	0.02	--	--	--	776	2350	
11-23-64	--	8.0	9488	27 546	18 226	50.00 1150	0.87 34	--	235 3.85	364 7.58	3040 85.73	0	--	--	--	5503	2294	
				28 78	19 19	52 52	1 1		4 4	8 8	88 88					5476		

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million					
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>
COASTAL PL OF LA CO HYDR SUBUNIT U05AU U05A2 L A SAN GABRIEL RIVER HYDRO UNIT U0500															
4S/14W- 8D17 S 2- 9-65	--	8.0	9400	560	245	1150	25	0	240	390	3080	0	--	--	2406
				27.94	20.15	50.00	0.64	3.93	3.64	6.12	66.86	--	--	--	5568
3-16-65	--	8.0	9470	514	265	1150	25	0	234	395	3040	0	--	--	2374
				25.65	21.79	50.00	0.64	3.84	3.64	8.22	85.73	--	--	--	5504
4S/14W- 8D21 S 12-21-64	--	8.1	5320	68	109	910	13	0	142	468	1416	0	--	--	618
				3.39	8.96	39.57	0.33	2.33	2.33	9.74	39.93	--	--	--	3054
12-21-64	--	7.8	20800	886	502	3240	62	0	222	980	7270	0	--	--	4278
				44.21	41.28	140.88	1.59	3.64	3.64	20.40	205.01	--	--	--	13049
4S/14W- 8E 3 S 11-17-64	--	8.5	1250	0	3	273	5	0	152	323	106	0	--	--	13
				0	0.25	11.87	0.13	2.49	2.49	6.72	2.99	--	--	--	785
12-18-64	--	8.4	1360	0	11	280	6	0	168	348	112	0	--	--	45
				0	0.90	12.17	0.15	2.75	2.75	7.25	3.16	--	--	--	840
4S/14W- 8E17 S 10-22-64	--	8.5	2590	128	52	312	15	0	216	54	694	0	--	--	534
				6.39	4.28	13.57	0.38	3.54	3.54	1.12	19.57	--	--	--	1361
11-13-64	--	8.5	2451	26	17	55	2	0	15	5	81	0	--	--	521
				123	52	286	16	0	218	51	660	--	--	--	1295
				6.14	4.28	12.44	0.41	3.57	3.57	1.06	18.61	--	--	--	1295
				26	18	53	2	15	15	5	80	--	--	--	1295

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million reagent value					Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Fluoride F	Nitrate NO <sub>3</sub>	Iron Fe	Manganese Mn	Copper Cu	Lead Pb	Total Dissolved Solids TDS
4S/14W-8E20 S 10-2-64	--	8.2	17100	672 33.53 17	332 27.30 14	3120 135.66 69	46 1.18 1	0	210 3.44 2	897 18.68 10	6080 171.46 89	--	0	--	--	--	--	11250 3044
11-18-64	--	8.0	14451	291 14.52	204 23.36	2660 115.66	42 1.37	0	180 2.95	652 17.74	4720 133.10	--	0	--	--	--	--	1496
4S/14W-8F 4 S 11-24-64	--	8.0	7837	778 38.82 50	239 19.66 25	420 18.26 24	24 0.61 1	0	14 0.23	247 5.16 7	3560 72.19 93	--	0	--	--	--	--	2926
11-24-64	--	8.1	15432	672 33.53 20	325 26.72 16	2400 104.35 63	34 0.87 1	0	186 3.08	691 14.39 9	5240 147.77 89	--	0	--	--	--	--	3015
12-28-64	--	8.2	15600	693 34.58 21	372 30.59 18	2360 102.61 61	30 0.77 1	0	192 3.15	687 14.30 8	5360 151.15 90	--	6.0 0.10	--	--	--	--	3261
1-28-65	--	8.3	16400	756 37.72 21	386 31.74 17	2550 110.67 61	47 1.20 1	0	207 3.39	798 16.61 9	5700 160.74 89	--	0	--	--	--	--	3476
4-1-65	--	8.2	17400	764 38.12 19	388 31.91 16	2940 127.83 64	40 1.02 1	0	199 3.26	656 17.82 9	6320 178.22 89	--	0	--	--	--	--	3504
6-18-65	--	8.1	19800	834 41.62 16	441 37.56 17	3360 146.09 64	46 1.18 1	0	194 3.18	1000 20.82 9	7360 207.55 90	--	0	--	--	--	--	4062
																		13176

COASTAL PL OF LA CO HYDR SUBUNIT U05A0  
WEST COAST HYDRO SUBAREA U05A2  
L A SAN GABRIEL RIVER HYDRO UNIT U0500

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per percent		Mineral constituents in parts per million							
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fuo- ride F	Boron B	Sul- co SiO <sub>2</sub>	Total hardness as CaCO <sub>3</sub> Computed		
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																		
WEST COAST HYDRO SUBAREA U05A2																		
4S/14W- 8F 5 S 12-28-64	--	8.0	888U	848 42.32 61	286 23.52 34	60 2.61 4	15 0.38 1	0	148 2.43 3	300 6.25 7	2960 83.47 91	0	--	--	--	4542	3295	
1-28-65	--	7.9	1190U	1030 51.40 41	336 27.63 22	1070 46.52 37	27 0.69 1	0	166 2.72 2	514 10.70 8	4000 112.80 89	0	--	--	--	7059	3955	
4- 1-65	--	7.7	1150U	1080 53.89 43	356 29.28 23	960 41.74 33	28 0.72 1	0	178 2.92 2	506 10.53 8	4100 115.62 90	0	--	--	--	7118	4162	
6-18-65	--	7.8	1240U	908 45.31 33	279 22.94 17	1520 66.09 49	37 0.95 1	0	164 2.69 2	572 11.91 9	4370 123.23 89	0	--	--	--	7767	3415	
4S/14W- 8F 6 S 11-24-64	--	7.9	1567U	656 32.73 20	324 26.65 16	2400 104.35 63	38 0.97 1	0	119 1.95 1	667 13.89 8	5320 150.02 90	0	--	--	--	9464	2971	
12-28-64	--	8.1	1560U	675 33.68 20	386 31.74 19	2300 100.00 60	40 1.02 1	0	198 3.25 2	691 14.39 9	5330 150.31 89	0	--	--	--	9519	3274	
1-28-65	--	8.2	1610U	682 34.03 20	404 33.22 19	2400 104.35 60	45 1.15 1	0	210 3.44 2	757 15.76 9	5420 152.84 89	0	--	--	--	9811	3365	
4- 1-65	--	8.9	1740U	736 36.73 19	400 32.90 17	2900 126.09 64	40 1.02 1	0	195 3.20 2	856 17.82 9	6300 177.66 89	0	--	--	--	11328	3484	

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million						
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	Total Evaporates as CaCO <sub>3</sub>
Date sampled				Co	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>	Evaporates as CaCO <sub>3</sub>
L A SAN GABRIEL RIVER HYDRO UNIT U0500																
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																
WEST COAST HYDRO SUBAREA U05A2																
45/14W-8F 6 S 6-18-65	--	8.2	19200	864 43.11 19	466 38.32 17	3200 139.14 63	46 1.18 1	0	194 3.18 1	980 20.40 9	7200 203.04 90	0	--	--	--	4075 12851
45/14W-8G 1 S 11-24-64	--	8.2	1748	129 6.44 39	41 3.37 20	152 6.61 40	8 0.20 1	0	245 4.02 24	32 0.67 4	421 11.87 72	0	--	--	--	491 903
6-14-65	--	8.2	1820	143 7.14 40	45 3.70 21	152 6.61 37	8 0.20 1	0	243 3.98 23	40 0.83 5	453 12.77 75	0	--	--	--	542 960
45/14W-8M 2 S 11-25-64	--	8.1	6110	400 19.96 33	176 14.47 24	600 26.09 43	23 0.59 1	0	159 2.61 4	77 1.60 3	2040 57.53 93	0	--	--	--	1723 3394
45/14W-8M 3 S 11-25-64	--	8.1	1111	85 4.24 36	27 1.81 15	132 5.74 48	3 0.08 1	0	136 2.23 19	323 6.72 57	104 2.93 25	0	--	--	--	303 736
12-29-64	--	8.2	1150	88 4.39 35	26 2.14 17	133 5.78 47	3 0.08 1	0	140 2.29 19	333 6.93 56	109 3.07 25	0	--	--	--	377 761
45/14W-8M 4 S 12-29-64	--	8.3	5970	397 19.81 34	204 16.78 29	485 21.09 36	23 0.59 1	0	182 2.98 5	61 1.27 2	1910 53.86 93	0	--	--	--	1881 3169
45/14W-8M 6 S 11-30-64	--	8.7	1370	5 0.25 2	5 0.41 3	286 12.44 94	4 0.10 1	0	146 2.39 18	321 6.68 51	146 4.12 31	0	--	--	--	38 839



TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million					Mineral constituents in parts per million				
				Calcium	Magne- sium	Sodium	Potas- sium	Carbon- ate	Bicar- bonate	Sulfate	Chlo- ride	Ni- trate	Ni- trate	flu- ide	Hydro- gen	CS	IDS	Evap. Residue
Date sampled				Co	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	S-4	Cl	N <sub>3</sub>	N <sub>3</sub>	S	B	S/2	Computed	Address
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																		
WEST COAST HYDRO SUBAREA U05A2																		
45/14W- 8M 6 S 12-18-64	--	8.4	1530	4 0.20	5 0.41	520 13.91	0.08	3	0	148 2.43	336 7.00	186 5.25	0	--	--	--	927	31
1-26-65	--	8.3	1200	34 1.70	50 4.11	142 6.17	0.10	4	0	144 2.36	324 6.75	110 3.10	0	--	--	--	735	291
45/14W- 8M12 S 11-24-64	--	7.9	5800	440 21.96	178 14.64	465 20.22	0.69	27	0	193 3.16	140 2.91	1830 51.61	0	--	--	--	3175	1831
45/14W- 8M13 S 10-27-64	--	7.6	43800	600 29.94	1133 93.18	9350 406.54	0.30	90	0	140 2.29	2430 50.59	17300 487.86	0	--	--	--	30972	6161
11-25-64	--	7.5	44643	578 28.84	1150 94.58	9800 426.10	0.30	90	0	132 2.16	2490 51.84	17600 496.32	0	--	--	--	31773	6176
3-10-65	--	7.7	42700	570 28.44	1190 97.87	9800 426.10	0.60	60	0	109 1.79	2530 52.67	17600 496.32	0	--	--	--	6321	6321
45/14W- 8M14 S 10-20-64	--	7.5	30900	380 18.96	744 61.19	6380 277.40	0.70	70	0	14 0.23	1729 36.00	11400 321.48	0	--	--	--	31804	4011
45/14W- 8M15 S 12-12-64	--	7.8	9920	105 5.24	208 17.11	1820 79.13	0.25	25	0	137 2.25	650 13.53	3060 86.29	0	--	--	--	5935	1118

TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents percent			parts per million value			Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Barium	Sulfate	Chloride	Nitrate	Fluoride
Date sampled				Cc	Mg	No	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F
COASTAL PL OF LA CO HYDR SUBUNIT U05AU																		
WEST COAST HYDRO SUBAREA U05A2																		
4S/14W- 8M15 S 12-15-64	--	7.9	13300	161 8.03	291 23.93	2450 106.53	31 0.79	0	137 2.25	794 16.53	4280 120.70	0	--	--	--	--	--	1599
4S/14W- 8N 5 S 11- 4-64	--	8.0	37819	686 34.23	985 81.01	8080 351.32	92 2.35	0	181 2.97	2099 43.70	15000 423.00	6 0.10	--	--	--	--	--	5767
11- 4-64	--	7.8	39370	642 32.04	1044 85.86	8400 365.23	80 2.05	0	189 3.10	2046 42.60	15648 441.27	0	--	--	--	--	--	5900
4S/14W- 8N 6 S 10-13-64	--	7.8	29200	691 34.48	690 56.75	5700 247.84	68 1.74	0	206 3.38	1523 31.71	10800 304.56	0	--	--	--	--	--	4565
4S/14W- 8N 7 S 2- 9-65	--	7.7	30900	720 35.93	786 64.64	6200 269.58	50 1.28	0	208 3.41	1710 35.60	11800 332.76	0	--	--	--	--	--	5033
4S/14W- 8N 8 S 1-28-65	--	7.6	29100	700 34.93	740 60.86	5880 255.66	50 1.28	0	215 3.52	1620 33.73	11200 313.84	0	--	--	--	--	--	4783
4S/14W- 8N 9 S 12- 3-64	--	8.3	32000	643 32.09	817 67.19	6840 297.40	92 2.35	0	161 2.64	1850 38.92	12700 358.14	0	--	--	--	--	--	5968
4S/14W- 8N10 S 1-18-65	--	7.7	29600	470 23.45	742 65.13	6000 260.88	45 1.15	0	149 2.44	1700 35.39	11200 315.84	0	--	--	--	--	--	4435
				7	19	74			1	10	89							70280

TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	Total Evap (60°C) Hardness CaCO <sub>3</sub>	
L A SAN GABRIEL RIVER HYDRU UNIT U0500																	
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																	
WEST COAST HYDRO SUBAREA U05A2																	
4S/14W- 8N11 S 1- 6-65	--	7.8	30300	485 24.20 7	769 63.24 17	6360 277.40 76	45 1.15	0	133 2.18 1	1750 36.44 10	11600 327.12 89	2.0 0.03	--	--	--	21096	4375
4S/14W- 8P 1 S 2-16-65	--	7.8	8080	624 31.14 36	245 20.15 24	770 33.48 39	23 0.59 1	0	242 3.97 5	268 5.58 7	2670 75.29 89	0	--	--	--	4719	2567
7-27-65	--	7.9	9290	720 35.93 37	254 20.89 22	900 39.13 40	28 0.72 1	0	242 3.97 4	319 6.64 7	3110 87.70 89	5 0.08	--	--	--	5455	2843
4S/14W- 8P 2 S 2-17-65	--	8.2	661	40 2.00 29	13 1.07 16	83 3.61 53	4 0.10 1	0	260 4.26 63	3 0.06 1	87 2.45 36	0	--	--	--	358	154
7-27-65	--	8.1	642	42 2.10 33	13 1.07 17	71 3.09 49	4 0.10 2	0	256 4.20 64	0 0 0	83 2.34 36	0	--	--	--	339	159
4S/14W- 90 1 S 10- 5-64	73	8.3	777	32 1.60	10 0.82	--	--	0	278 4.56	--	113 3.19	--	--	--	--	121	121
10-29-64	--	7.6	730	35 1.75 21	10 0.82 10	125 5.44 67	5 0.13 2	0	277 4.54 55	3 0.06 1	130 3.67 44	0.0 0.0	0.2	0.34	--	494 445	129
1-11-65	57	8.2	1050	40 2.00 20	12 0.99 10	164 7.13 70	5 0.13 1	0	279 4.57 45	0	201 5.67 55	0	--	--	--	559	150

L A SAN GABRIEL RIVER HYDRO UNIT U0500

TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent				Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlor- ide Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	Total Evap. Resid- ue at 105°C mg/l
Date sampled																
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																
WEST COAST HYDRO SUBAREA U05A2																
4S/14W-90 1 S	60	8.1	799	41	12	110	4	0	282	1	122	0	--	--	--	152
2- 1-65				2.05	0.99	4.78	0.10		4.62	0.02	3.44					429
				26	13	60	1		57		43					181
3- 1-65	72	7.9	1200	46	16	169	6	0	278	3	230	0	--	--	--	607
				2.30	1.32	7.35	0.15		4.56	0.06	6.49					660
				21	12	66	1		41	1	58					655
3-31-65	--	8.1	1165	51	15	187	5	0	283	5	252	0.0	0.2	0.75	--	189
				2.54	1.23	8.13	0.13		4.64	0.10	7.11					660
				21	10	68	1		39	1	60					655
5-10-65	--	7.9	1110	48	14	166	6	0	277	0	226	0	--	--	--	178
				2.40	1.15	7.22	0.15		4.54		6.37					596
				22	11	66	1		42		58					183
6- 2-65	--	8.1	1080	52	13	152	6	0	273	1	211	0	--	--	--	569
				2.59	1.07	6.61	0.15		4.47	0.02	5.95					164
				25	10	63	1		43		57					466
7- 7-65	70	8.5	883	64	13	127	5	0	262	0	153	0	--	--	--	170
				2.20	1.07	5.30	0.13		4.29		4.51					475
				25	12	61	1		50		50					370
8- 2-65	72	7.8	899	45	14	120	5	0	279	0	154	0	--	--	--	164
				2.25	1.15	5.22	0.13		4.57		4.36					365
				26	13	60	1		51		49					
4S/14W-10J 1 S	--	7.4	632	41	15	67	5	0	230	12	79	2.0	0.4	0.14	30	164
10-29-64				2.35	1.23	2.91	0.13		3.77	0.25	2.23	0.03				365
				32	19	46	2		60	4	86					

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million value					Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Silica SiO <sub>2</sub>	TDS Evap residue as CaCO <sub>3</sub>	Total dissolved solids TDS		
L A SAN GABRIEL RIVER HYDRO UNIT U0500																		
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																		
WEST COAST HYDRO SUBAREA U05A2																		
4S/14W-10J 1 S 3-30-65	--	8.0	638	42 2.10 34	13 1.07 17	67 2.91 47	5 0.13 2	0	225 3.69 60	4 0.19 3	19 2.23 36	3 0.05 1	0.5	0.13	358	159	358	159
4S/14W-11F 1 S 10-29-64	--	7.8	970	85 4.24 42	22 1.81 18	88 3.83 38	7 0.18 2	0	262 4.29 43	64 1.33 13	155 4.31 44	2.0 0.03	0.2	0.12	576	303	576	303
3-30-65	--	7.9	900	72 3.59 38	25 2.06 22	83 3.61 38	6 0.15 2	0	264 4.33 47	44 0.92 10	140 3.95 43	2 0.03	0.2	0.15	550	283	550	283
4S/14W-12Q 2 S 7-20-65	--	7.8	1030	19 0.95 9	17 1.40 14	176 7.65 75	8 0.20 2	0	458 7.51 70	3 0.06 1	110 3.10 29	0	--	--	502	118	502	118
4S/14W-16F 1 S 10-27-64	--	7.8	720	38 1.90 25	12 0.99 13	105 4.57 60	5 0.13 2	0	274 4.49 60	8 0.17 2	100 2.82 38	0.0	0.2	0.36	448	145	448	145
3-30-65	--	7.5	749	34 1.70 23	13 1.07 14	105 4.57 61	5 0.13 2	0	285 4.67 63	4 0.08 1	96 2.71 36	0	0.4	0.24	430	139	398	139
4S/14W-16L 2 S 3-30-65	--	7.6	840	45 2.25 26	15 1.23 14	116 5.04 58	5 0.13 2	0	305 5.00 57	7 0.15 2	126 3.55 41	0.0	0.2	0.24	500	174	464	174
4S/14W-16L 4 S 10-29-64	--	8.0	790	40 2.00 24	17 1.40 16	114 4.96 58	6 0.15 2	0	287 4.70 57	1 0.02	124 3.50 43	0.0	0.2	0.16	464	170	464	170



TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Flu- oride F	Bar- ium Ba	Sul- fate SO <sub>4</sub>	Sil- ica SiO <sub>2</sub>	Total dissolved solids ppm	
COASTAL PL OF LA CO HYDR SUBUNIT U0540 WEST COAST HYDRO SUBAREA U0542																		
45/14W-17D 1 S 11-20-64	--	8.2	8711	616 30.74 34	331 27.22 30	720 31.31 35	0.67 0.67 1	34 0.67 1	0 2.97 3	181 3.60 4	2960 83.47 53	0	--	--	--	4923	2900	
3-26-65	--	8.0	9600	688 34.33 33	376 30.92 30	860 37.39 36	0.79 0.79 1	31 0.79 1	0 3.62 3	224 4.66 4	3400 95.86 92	0	--	--	--	5688	3765	
45/14W-17D 2 S 11-26-64	--	8.2	32051	883 44.6 12	749 61.66 16	6280 273.05 72	76 1.94 1	0 1.94 1	231 3.79 1	1650 34.45 7	12000 336.40 90	0	--	--	--	5287	5462	
3-26-65	--	8.0	31400	864 43.11 11	803 66.24 17	6500 262.62 72	68 1.74 1	0 1.74 1	224 3.67 1	1770 37.27 9	12500 352.50 90	0	--	--	--	22635	222	
6-6-65	--	7.9	1320	26 1.3 10	38 3.13 23	203 8.83 66	5 0.13 1	0 0.13 1	144 2.46 18	447 7.22 54	134 3.76 28	0	--	--	--	824	3406	
45/14W-17D 3 S 4-1-65	--	7.5	12000	666 33.23 28	443 36.43 31	1100 47.68 40	4 1.07 1	0 1.07 1	166 2.72 2	352 5.31 4	3920 110.34 93	0	--	--	--	6508	6270	
45/14W-17D 4 S 11-30-64	--	8.3	21810	1110 55.49 22	595 48.23 20	3240 140.38 57	44 1.13 1	5 1.13 1	231 3.77 2	422 14.20 9	7840 221.65 91	0	--	--	--	16884	5483	
3-26-65	--	8.0	11500	1220 60.88 24	592 48.69 17	4360 146.76 97	46 1.18 1	0 1.18 1	227 3.75 1	1310 21.05 8	3200 93.00 90	0	--	--	--	14441		

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million reactivity value					Mineral constituents in parts per million				
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	TDS Expressed as CaCO <sub>3</sub>	Total Hardness Expressed as CaCO <sub>3</sub>	
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																		
WEST COAST HYDRO SUBAREA U05A2																		
4S/14W-17D 5 S 11-30-64	--	8.4	41300	552 27.54 5	1100 90.46 18	9000 891.32 76	124 3.17 1	0	183 3.00 1	2290 47.68 9	16300 459.66 90	0	--	--	--	29456	5905	
3-26-65	--	8.1	40000	524 26.15 5	1120 92.11 19	8600 873.93 75	136 3.48 1	0	180 2.95 1	2310 48.09 10	15900 448.38 90	0	--	--	--	28679	5918	
4S/14W-17D 6 S 11-30-64	--	8.1	13400	1140 56.89 39	450 37.01 26	1150 50.00 35	18 0.46 0	0	109 1.79 1	650 13.53 9	4640 130.85 90	0	--	--	--	8102	4699	
3-26-65	--	7.8	14100	1320 65.87 40	519 42.68 26	1240 53.92 33	20 0.51 0	0	169 2.77 2	778 16.20 10	5140 144.95 88	0	--	--	--	9100	5432	
4S/14W-17D 8 S 3-29-65	--	7.7	26200	692 34.53 11	747 61.43 19	5130 223.05 70	25 0.64 0	0	173 2.84 1	1460 30.40 10	10100 284.82 90	0	--	--	--	18239	4802	
4S/14W-17D10 S 11- 5-64	--	7.9	16556	745 37.18 20	380 31.25 17	2600 113.05 62	56 1.43 1	0	241 3.95 2	807 16.80 9	5760 162.43 89	2 0.03	--	--	--	3424	3822	
11- 5-64	--	8.2	20661	766 38.22 16	464 38.16 16	3600 156.53 67	68 1.74 1	0	228 3.74 2	1012 21.07 9	7380 208.12 89	6 0.10	--	--	--	10468	3822	
4S/14W-17D12 S 3-10-65	--	7.8	14900	706 35.23 22	449 36.93 23	2000 86.96 96	40 1.02 1	0	192 3.15 2	646 13.45 8	5250 148.05 90	0	--	--	--	9185	3611	

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent					Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	Total hardness Equiv. as CaCO <sub>3</sub>		
COASTAL PL OF LA CO HYDR SUBUNIT U05A0 U05A2																		
WEST COAST HYDRO SUBAREA																		
4S/14W-17D13 S 3-4-65	--	7.8	24400	624 31.14	609 50.08	4650 202.18	43 1.10	0	202 3.31	1350 28.11	9040 254.93	0	--	--	--	16415	4064	
4S/14W-17D14 S 3-30-65	--	7.8	23500	684 34.13	541 44.43	3960 172.18	20 0.51	0	210 3.44	1140 23.73	7960 224.47	0	--	--	--	3934	3934	
4S/14W-17E 3 S 11-23-64	--	8.4	9823	587 29.29	453 37.25	790 34.35	40 1.02	0	225 3.69	82 1.71	3420 96.44	0	--	--	--	14408	3330	
5-10-65	--	8.1	10500	651 32.48	496 40.96	830 36.09	20 0.51	0	196 3.21	95 1.98	3720 104.90	0	--	--	--	5483	3675	
6-15-65	--	8.2	10200	638 31.84	493 40.30	860 37.39	34 0.87	0	181 2.97	78 1.62	3760 106.03	0	--	--	--	5910	3610	
4S/14W-17E 4 S 11-23-64	--	8.1	32258	914 45.61	746 61.35	6200 269.58	176 4.50	0	230 3.77	1640 34.14	12200 344.04	0	--	--	--	5949	5352	
5-10-65	--	8.2	32000	816 40.72	843 69.33	6380 277.45	78 1.99	0	226 3.70	1700 35.39	12500 352.50	0	--	--	--	21989	5507	
6-15-65	--	8.2	31200	816 40.72	852 70.07	6500 282.62	63 1.61	0	228 3.74	1720 35.81	12600 355.32	0	--	--	--	22428	5544	
				10	18	72			1	9	90					42663		

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in							parts per million equivalents per percent		Mineral constituents in parts per million						
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Ferric oxide	Boron	Silica	Total dissolved solids			
Date sampled				Ca	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>	Total dissolved solids			
COASTAL PL OF LA CO HYDR SUBUNIT U05AU																			
WEST COAST HYDRO SUBAREA U05A2																			
4S/14W-17E 5 S 11-23-64	--	8.5	1792	127 6.34 37	51 4.19 25	142 6.17 36	11 J.28 2	0	276 4.52 26	0	446 12.58 74	0	--	--	--	527			
5-10-65	--	7.9	4810	442 22.06 47	179 14.72 31	240 10.44 22	7 0.18	0	228 3.74 8	46 0.96 2	1510 42.58 90	0	--	--	--	1840			
6-15-65	--	8.0	5100	480 23.95 46	195 15.87 31	205 11.52 22	20 0.51 1	0	246 4.03 8	66 1.79 3	1610 45.60 89	0	--	--	--	1995			
4S/14W-17E 8 S 3-23-65	--	7.9	7620	356 17.76 25	338 27.80 38	600 26.09 36	30 0.77	0	221 3.62 5	61 1.27 2	2410 67.96 93	0	--	--	--	2280			
4S/14W-17E 9 S 3-15-65	--	7.8	20900	728 36.33 15	548 42.07 19	3500 154.79 65	40 1.10	0	264 4.53 2	971 20.22 8	7590 214.04 90	0	--	--	--	4073			
4S/14W-17E 11 S 4- 8-65	--	7.6	22900	768 38.32 16	568 46.71 19	3640 158.27 65	56 1.43 1	0	257 4.21 2	934 19.45 8	7800 219.76 90	0	--	--	--	4255			
4S/14W-17F 1 S 12- 3-64	--	8.5	5400	434 21.66 41	176 14.47 27	375 16.31 31	26 0.60 1	0	260 4.26 8	3 0.06 0	1720 48.50 92	0	--	--	--	1808			
5- 6-65	--	8.1	5100	399 19.91 39	172 14.15 28	364 15.83 31	24 0.61 1	0	271 4.44 9	2 0.04	1620 45.68 91	0	--	--	--	1704			

TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent				Mineral constituents in parts per million			
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlor- ide Cl	Ni- trate NO <sub>3</sub>	Flu- oride F	Bar- ium Ba	Sili- ca SiO <sub>2</sub>
Date sampled	L A SAN GABRIEL RIVER HYDRO UNIT U0500														
COASTAL PL OF LA CO HYDR SUBUNIT U05A0															
WEST COAST HYDRO SUBAREA U05A2															
4S/14W-17F 2 S 12- 3-64	--	8.0	13400	766 38.22	455 17.44	1560 67.83	51 1.30	0	192 3.15	444 9.24	4680 131.98	0	--	--	3785
5- 6-65	--	7.9	13800	768 38.32	458 17.67	1710 74.55	44 1.13	0	275 4.51	420 8.74	4880 137.02	0	--	--	3803
4S/14W-17H 1 S 10- 5-64	--	8.1	863	50 2.50	16 1.32	--	--	0	293 4.80	--	134 3.78	--	--	--	191
10-27-64	--	7.4	810	42 2.10	17 1.40	120 5.22	6 0.15	--	282 4.62	16 0.33	151 3.69	0.0	0.4	0.29	175
1-11-65	72	8.3	822	45 2.25	15 1.23	104 4.52	5 0.13	0	290 4.75	2 0.04	121 3.41	0	--	--	174
3- 1-65	75	8.2	893	28 56	15 1.40	56 4.48	2 0.13	0	58 4.70	1 0.02	42 4.03	0	--	--	210
3-30-65	--	8.4	860	32 60	16 1.40	51 4.78	1 0.23	5	54 4.88	6 0.12	46 3.55	0.0	0.1	0.27	220
4- 7-65	70	8.4	830	29 48	16 1.32	100 4.35	2 0.13	0	54 4.36	4 0.08	129 3.64	0	--	--	186
															433



TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million							Mineral constituents in parts per million						
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Barium Ba	Silica SiO <sub>2</sub>	TDS Evap 180°C Evap 105°C Hardness as CaCO <sub>3</sub>	
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																	
WEST COAST HYDRO SUBAREA U05A2																	
4S/14W-17H 1 S 5-10-65	75	8.1	942	58 2.89 32	18 1.48 16	107 4.65 51	6 0.15 2	0	294 4.82 53	0	154 4.34 47	0	--	--	--	488	219
8- 2-65	73	8.2	789	37 1.85 24	13 1.07 14	107 4.65 60	5 0.13 2	0	284 4.65 60	8	106 2.99 38	0	--	--	--	416	146
4S/14W-17H 2 S 10-27-64	--	8.2	775	46 2.30 28	15 1.23 15	106 4.61 56	5 0.13 2	0	276 4.52 56	8 0.17 2	119 3.36 42	0.0	0.1	0.25	--	482	177
2- 1-65	61	8.3	750	35 1.75 23	15 1.23 16	107 4.65 60	4 0.10 1	0	289 4.74 61	7 0.15 2	100 2.82 37	0	--	--	--	435	149
3-30-65	--	8.3	710	37 1.85 22	21 1.73 21	107 4.65 55	6 0.15 2	4	298 4.88 59	2 0.04 36	112 3.16 36	0.0	0.2	0.18	--	480	179
7- 7-65	72	8.6	747	38 1.90 24	14 1.15 15	107 4.65 59	5 0.13 2	16	252 4.13 54	4 0.08 1	102 2.88 38	0	--	--	--	436	153
4S/14W-17M 3 S 6-22-65	--	8.3	20200	785 39.17 17	523 43.01 19	3250 141.31 63	68 1.74 1	0	266 4.36 2	844 17.57 8	7280 205.50 90	10 0.16	--	--	--	410	4112
4S/14W-17M 4 S 6-29-65	--	8.1	20900	794 39.62 17	542 44.57 19	3420 148.70 63	102 2.61 1	0	258 4.23 2	910 18.95 8	7610 214.60 90	10 0.16	--	--	--	12891	4213
																13515	

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million				Mineral constituents in parts per million					
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	Total dissolved solids TDS	
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																	
WEST COAST HYDRO SUBAREA U05A2																	
4S/14W-17M 5 S 5- 4-65	--	7.8	18200	759 37.87 18	486 39.97 19	3040 132.18 63	56 1.43 1	0	260 4.26 2	794 16.53 8	6720 189.50 90	6 0.10	--	--	--	3895 11989	--
4S/14W-17N 4 S 6-14-65	--	7.7	17200	801 39.97 20	563 46.30 23	2560 111.31 56	56 1.43 1	0	268 4.39 2	642 13.37 7	6440 181.61 91	0	--	--	--	4317 11194	--
4S/14W-17N 5 S 6- 3-65	--	7.8	17700	802 40.02 19	537 44.16 21	2840 123.48 59	56 1.43 1	0	264 4.33 2	728 15.16 7	6600 186.12 91	0	--	--	--	4212 11693	--
4S/14W-17N 6 S 7- 9-65	--	8.2	16300	832 41.52 23	466 38.32 21	2300 100.00 55	41 1.05 1	0	278 4.56 3	506 10.53 6	5930 167.23 92	0	--	--	--	3995 10212	--
4S/14W-17P 1 S 2-23-65	--	8.2	2990	150 7.49 25	99 8.14 27	332 14.44 47	17 0.43 1	0	545 8.93 30	6 0.12 36	722 20.36 69	0	--	--	--	782 1594	--
4S/14W-17P 2 S 2-19-65	--	8.3	1620	103 5.14 33	47 3.87 25	142 6.17 40	10 0.26 2	0	335 5.49 36	5 0.10 1	346 9.76 64	0	--	--	--	451 818	--
6-15-65	--	8.1	1890	132 6.59 36	60 4.93 27	152 6.61 36	11 0.28 2	0	330 5.41 29	2 0.04 70	461 13.00 70	0	--	--	--	576 980	--
4S/14W-18A 1 S 12- 1-64	--	8.3	26000	1110 55.39 18	765 62.91 21	4150 180.44 60	58 1.48	0	188 3.08 1	1130 23.53 8	9760 275.23 91	0	--	--	--	5920 17065	--

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million reactivity value					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fer- ride Fe	Bicarb- on B	Sulf- ate SO <sub>4</sub>	I.O.S. Evap. Resid. as Computed	Address	
COASTAL PL OF LA CO HYDR SUBUNIT U05A, WEST COAST HYDRO SUBAREA U05A2 L A SAN GABRIEL RIVER HYDRO UNIT U0500																		
4S/14W-18A 2 S 12- 1-64	--	8.4	36800	586 29.24 7	984 80.92 18	7640 332.19 74	164 4.19 1	0	208 3.41 1	1920 39.97 9	14200 400.44 90	0	--	--	--	5512		
4S/14W-18A 3 S 12- 1-64	--	8.2	13300	968 48.30 34	373 30.68 22	1420 61.74 44	25 0.64 0	0	154 2.52 2	519 10.81 8	4530 127.75 91	3.7 0.06	--	--	--	3952		
4S/14W-18A 4 S 3-29-65	--	8.1	21800	992 49.50 19	650 53.46 21	3520 153.05 59	56 1.43 1	0	188 3.08 1	934 19.42 8	8360 235.75 91	0	--	--	--	5152		
6-14-65	--	8.1	21900	1000 49.50 19	665 54.69 21	3520 153.05 59	56 1.43 1	0	192 3.15 1	947 19.72 8	8360 235.75 91	0	--	--	--	5234		
4S/14W-18A 5 S 3-29-65	--	7.9	38500	592 29.54 6	1080 68.82 18	8400 365.23 75	200 5.11 1	0	188 3.08 1	2170 45.18 9	15700 442.74 90	0	--	--	--	5923		
6-14-65	--	8.1	38800	597 29.79 6	1070 69.64 18	8600 373.93 75	224 5.73 1	0	188 3.08 1	2230 46.43 9	16000 451.20 90	0	--	--	--	5976		
4S/14W-18A 6 S 3-29-65	--	7.8	10700	384 19.16 16	262 21.55 18	1760 76.52 65	13 0.33 0	0	183 3.00 3	556 11.58 10	3680 103.78 88	0	--	--	--	2037		
4S/14W-18A 8 S 5-12-65	--	8.0	37600	616 30.74 7	1040 85.53 18	8000 347.84 74	200 5.11 1	0	195 3.20 1	2090 43.51 9	15100 425.82 90	0	--	--	--	5818		
																21142		

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million percent reactance value					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	Evap (80°C) Evap (105°C) Computed Total		
COASTAL PL OF LA CO HYDR SUBUNIT U05AC																		
WEST COAST HYDRO SUBAREA U05A2																		
45/14W-18A 8 S 6-14-65	--	8.1	37300	622 31.04	1050 86.35	8200 356.54	212 5.42	0	195 3.20	2120 44.14	15400 434.28	0	--	--	--	27700	5674	
45/14W-18A 9 S 5-12-65	--	8.2	31400	208 10.38	80 6.58	322 14.00	17 0.43	0	194 3.18	224 4.66	832 23.46	0	--	--	--	1776	849	
6-14-65	--	8.3	45400	316 15.77	121 9.95	460 20.00	22 0.56	0	190 3.11	275 5.73	1320 37.22	0	--	--	--	2607	1287	
45/14W-18A 1 S 11-20-64	--	8.2	37594	640 31.94	1005 82.65	7760 337.40	146 3.78	0	222 3.64	1930 40.18	14600 411.72	0	--	--	--	26142	5734	
6-11-65	--	8.2	36500	624 31.14	1070 88.00	7840 340.88	160 4.09	0	217 3.56	2000 41.64	14900 420.18	0	--	--	--	26701	5962	
45/14W-18A 1 S 12- 4-64	--	8.4	39700	510 25.45	1100 90.46	8800 362.92	280 7.10	0	272 4.46	2230 46.43	16200 456.84	0	--	--	--	29254	5800	
45/14W-18A 1 S 12- 9-64	--	8.2	25200	1010 50.40	450 69.90	4150 180.44	85 2.17	0	215 3.52	1100 22.90	9840 277.49	0	--	--	--	17141	6020	
5- 7-65	--	8.0	26000	1020 50.90	854 70.22	4300 186.96	84 2.15	0	212 3.47	1110 23.11	10100 284.82	0	--	--	--	17572	6051	

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in							parts per million equivalents per percent reactance value					Mineral constituents in parts per million				
				Calcium	Magne- sium	Sodium	Potas- sium	Carbon- ate	Bicar- bonate	Sulfate	Chlo- ride	Ni- trate	Fluo- ride	Boron	Sili- ca	Total hardness at 105°C				
Date sampled				Co	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>	CalCO <sub>3</sub>				
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																				
WEST COAST HYDRO SUBAREA U05A2																				
L A SAN GABRIEL RIVER HYDRO UNIT U0500																				
4S/14W-18H 1 S 6-21-65	--	8.2	25400	1010 50.40 16	860 70.73 23	4300 186.96 60	185 4.73 2	0	211 3.46 1	1160 24.15 8	10200 287.64 91	0	--	--	--	17819	6061			
4S/14W-18H 2 S 11-25-64	--	8.2	12920	538 26.85 19	295 24.26 17	2000 86.96 62	45 1.15 1	0	206 3.38 2	728 15.16 11	4250 119.85 87	0	--	--	--	7957	2558			
12- 2-64	--	8.2	30500	705 35.18 9	795 65.38 17	6250 271.75 73	78 1.99 1	0	233 3.82 1	1670 34.77 9	11900 335.58 90	0	--	--	--	21513	5032			
5- 7-65	--	8.1	30900	648 32.34 9	824 67.77 18	6250 271.75 73	63 1.61 1	0	230 3.77 1	1650 34.35 9	12000 338.40 90	0	--	--	--	21548	5010			
6-16-65	--	8.2	30700	646 32.24 9	825 67.85 18	6380 277.40 73	58 1.48 1	0	231 3.79 1	1670 34.77 9	12100 341.22 90	0	--	--	--	21793	5009			
4S/14W-18H 3 S 12- 2-64	--	8.8	1370	88 4.39 33	32 2.63 19	143 6.22 46	10 0.26 2	0	326 5.34 39	5 0.10 1	288 8.12 60	0	--	--	--	726	351			
5- 7-65	--	8.3	2620	197 9.83 38	75 6.17 24	220 9.57 37	13 0.33 1	0	314 5.15 20	33 0.69 3	706 19.91 77	0	--	--	--	1398	801			
6-16-65	--	8.3	3360	288 14.37 43	112 9.21 27	220 9.57 29	16 0.41 1	0	294 4.82 14	48 1.00 3	976 27.52 83	0	--	--	--	1805	1180			



TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlor- ide Cl	Ni- trate NO <sub>3</sub>	Fuor- ide F	Boron B	Sili- ca SiO <sub>2</sub>	Total Equiv 100°C Equiv 100°C as Computed Calc.		
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																		
WEST COAST HYDRO SUBAREA U05A2																		
45/14W-18J 1 S 12- 4-64	--	8.2	35000	674 33.63	951 78.21	7280 316.53	100 2.56	0	206 3.38	1901 39.58	13800 389.16	0	--	--	--	24807	5596	
6-17-65	--	8.2	33600	650 32.44	967 79.53	7300 317.40	185 4.73	0	210 3.44	1930 40.18	14000 394.50	0	--	--	--	20155	5603	
45/14W-18K 1 S 12- 3-64	--	8.1	36200	670 33.43	1040 85.53	7840 340.88	100 2.56	0	234 3.84	1970 41.02	14700 414.54	0	--	--	--	26435	5953	
6-17-65	--	8.2	35200	656 32.73	1030 84.71	7800 339.14	75 1.92	0	226 3.70	2010 41.85	14800 417.36	0	--	--	--	26482	5877	
45/14W-18Q 1 S 12- 7-64	--	8.2	29100	1230 61.36	918 75.50	4850 210.88	105 2.68	0	172 2.82	1161 24.17	11500 324.30	0	--	--	--	19849	6849	
45/14W-18Q 2 S 12- 7-64	--	8.3	43800	506 25.25	1220 100.33	10000 434.80	270 6.90	0	140 2.29	2590 53.92	16200 513.24	0	--	--	--	36855	6284	
45/14W-18Q 3 S 12- 7-64	--	8.4	26300	949 47.36	780 64.15	4500 195.66	93 2.38	0	316 5.18	918 19.11	10100 284.82	0	--	--	--	17495	5580	
45/14W-20G 1 S 3-30-65	--	8.3	13800	452 22.55	468 38.49	1960 85.22	40 1.02	0	523 8.57	37 0.77	4920 138.74	0	--	--	--	9154	3054	

TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					Mineral constituents in parts per million								
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Barium Ba	Silica SiO <sub>2</sub>	TDS Evap 180°C Exp 105°C Comp 105°C	Mineral constituents in parts per million
Date sampled																	
L A SAN GABRIEL RIVER HYDRO UNIT U0500																	
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																	
WEST COAST HYDRO SUBAREA U05A2																	
4S/14W-20G 2 S 3-30-65	--	8.0	4350	368 18.36 41	169 13.90 31	268 11.05 26	15 0.38 1	0	554 9.08 20	10 0.21 79	1250 35.25 79	0	--	--	--	2352	1614
4S/14W-20G 4 S 3-30-65	--	8.1	6120	436 21.76 35	206 16.94 27	525 22.83 37	19 0.49 1	0	264 4.33 7	194 4.04 6	1940 54.71 87	0	--	--	--	3450	1937
4S/14W-21N 1 S 10-27-64	67	7.8	980	63 3.14 29	34 2.80 26	110 4.78 44	8 0.20 2	0	422 6.72 64	1 0.02 35	135 3.81 35	3.0 0.03 0.03	0.2	0.24	--	638	297
3-31-65	--	8.1	985	65 3.24 29	40 3.29 29	103 4.48 40	12 0.31 3	0	446 7.31 64	8 0.17 1	137 3.86 34	2 0.03 0.03	0.1	0.24	--	604	327
4S/14W-35F 2 S 10-29-64	71	7.9	900	56 2.79 29	24 1.97 20	112 4.87 50	5 0.13 1	0	359 5.08 62	2 0.04 37	120 3.55 37	0.0	0.2	0.24	--	568	238
4- 2-65	--	8.0	860	42 2.10 21	32 2.63 27	114 4.96 50	9 0.23 2	0	355 5.82 60	7 0.15 2	130 3.67 38	0.0	0.4	0.27	--	524	237
5S/12W- 3F 1 S 10- 2-64	--	7.8	1101	39 1.95 17	10 0.82 7	187 8.13 73	10 0.26 2	0	347 5.69 51	25 0.52 5	174 4.91 44	0.0	--	--	--	509	139
5S/12W- 3J 1 S 10- 6-64	--	8.5	886	26 1.30 15	7 0.58 7	158 6.87 78	4 0.10 1	0	299 4.90 56	0	138 3.89 44	0.0	--	--	--	616	94
																480	

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million				Mineral constituents in parts per million					
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlor- ide Cl	N Nitrate NO <sub>3</sub>	Flu- oride F	Boron B	Sel- en- ium Se	Total Evap (80°C) Residues as Compd Calc-3	
L A SAN GABRIEL RIVER HYDRO UNIT U0500																	
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																	
WEST COAST HYDRO SUBAREA U05A2																	
55/13W-1A 1 S 7-16-65	--	8.6	3400	37 1.85	32 2.63	604 28.87	17 0.43	27 0.90	575 9.42	12 0.25	840 23.69	0	--	--	--	224	
55/13W-2G 3 S 5-11-65	68	7.7	4100	470 23.45	1140 93.75	9200 400.02	260 6.65	0	228 3.74	2290 47.68	16700 470.94	0	--	--	--	5865	
8- 2-65	68	7.6	40300	464	1100	8000	272	0	216	2190	16000	18	--	--	--	5685	
55/13W-2J 6 S 8-30-65	70	8.6	26600	328 16.37	694 57.07	5250 228.27	158 4.04	0	408 6.09	1300 27.07	9740 270.87	0	--	--	--	3675	
55/13W-2K 8 S 7- 9-65	66	7.5	27700	305 15.22	729 59.95	5325 231.55	180 4.60	0	395 6.47	1199 26.96	9810 276.64	4 0.06	1.3	1.90	--	3762	
55/13W-4E 1 S 6-25-65	--	8.2	41700	52.40 5	1370 112.67	9600 417.41	180 4.09	0	426 6.98	2420 50.38	18800 530.18	0	--	--	--	8260	
55/13W-4E 2 S 6-25-65	--	8.3	9520	244 14.67	269 22.12	1470 63.92	28 0.72	0	442 7.24	84 1.75	3250 91.09	0	--	--	--	1841	
55/13W-4M 1 S 7- 9-65	67	7.6	38200	477 23.80	1136 93.42	9380 407.84	313 8.00	0	444 7.28	2168 45.14	18000 473.76	33 0.53	1.4	2.80	--	5866	
				4	18	77	7		1	9	90					30529	

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				million per million				Mineral constituents in parts per million			
				Calcium	Magne- sium	Sodium	Potas- sium	Carbon- ate	Bicar- bonate	Sulfate	Chlor- ide	Ni- trate	Fluor- ide	Boron	Sili- ca	I.D.S. Evap. 180°C as CaCO <sub>3</sub>	Total hardness as CaCO <sub>3</sub>		
Date sampled				Co	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>				
L A SAN GABRIEL RIVER HYDRO UNIT U0500																			
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																			
WEST COAST HYDRO SUBAREA U05A2																			
55/13W- 4N 1 S 8-30-65	--	8.0	27600	345 17.22 5	713 58.64 18	5500 239.14 75	128 3.27 1	0	486 7.97 2	1290 26.86 8	10100 284.82 89	0	--	--	--	--	3796	18315	--
55/13W- 5C 1 S 6-24-65	--	8.5	1060	14 0.70 7	10 0.82 8	205 8.91 84	9 0.23 2	0	352 5.77 54	0	174 4.91 46	0	--	--	--	--	76	585	--
55/13W- 5C 2 S 6-24-65	--	8.0	36500	883 44.06 9	1110 91.29 18	8200 356.54 72	92 2.35	0	344 5.64 1	2020 42.06 9	15800 445.56 90	0	--	--	--	--	6773	28274	--
55/13W- 6B 1 S 7-13-65	--	8.6	2670	27 1.35 5	14 1.15 4	560 24.35 89	16 0.41 2	28 0.93 3	627 10.28 38	7 0.15 1	560 15.79 58	0	--	--	--	--	125	1520	--
55/13W- 6B 2 S 7-13-65	--	8.2	44600	480 23.95 4	1285 105.68 19	9800 426.10 76	280 7.16 1	0	339 5.56 1	2410 50.18 9	18200 513.24 90	0	--	--	--	--	6487	32622	--
55/13W- 6D 1 S 10- 5-64	33	8.2	2390	30 1.50	16 1.32	--	--	0	548 8.98	--	572 16.13	--	--	--	--	--	141	--	--
11- 2-64	90	7.9	2350	37 1.85 8	15 1.23 5	470 20.44 86	1 0.15 1	0	518 8.49 35	1 0.02 64	546 15.40 64	4.0 0.06	0.8	1.64	--	--	154	1484	--
11-30-64	--	8.4	2400	31 1.55 7	17 1.40 6	470 20.44 86	12 0.31 1	0	558 9.15 38	13 0.27 1	516 14.55 61	0	--	--	--	--	148	1336	--
																		1333	

TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent					Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Bicarbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	Total Evaporite Eva. IOSEC as Computed		
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																		
WEST COAST HYDRO SUBAREA U05A2																		
5S/13W- 60 1 S 1-12-65	96	8.3	1950	27 1.35	17 1.40	384 16.70	11 0.28	0	507 8.31	21 0.44	396 11.17	0	--	--	--	--	138	
2- 1-65	96	8.4	2020	32 1.60	16 1.32	420 18.26	12 0.31	0	525 8.60	27 0.56	416 11.73	0	--	--	--	--	146	
4- 2-65	--	8.0	2250	44 2.20	16 1.32	495 21.52	18 0.46	0	573 9.39	6 0.17	534 15.20	1 0.02	0.6	2.00	--	--	176	
5-10-65	88	8.2	2350	27 1.35	20 1.64	470 20.44	6 0.15	0	542 8.88	9 0.19	514 14.49	0	--	--	--	--	150	
6- 2-65	--	7.8	2350	31 1.55	17 1.40	460 20.00	14 0.36	0	538 8.82	12 0.25	506 14.27	0	--	--	--	--	148	
7- 6-65	--	8.6	2280	30 1.50	17 1.40	460 20.00	14 0.36	27 0.90	480 7.87	13 0.27	490 13.82	0	--	--	--	--	145	
8- 3-65	88	8.1	2290	30 1.50	16 1.32	460 20.00	12 0.31	0	542 8.88	23 0.46	492 13.96	0	--	--	--	--	141	
5S/13W- 8P 1 S 7-12-65	--	8.1	53000	775 38.82	1589 130.68	12500 543.50	255 6.52	0	397 6.51	3280 68.29	22800 642.96	0	--	--	--	--	8482	
				5	18	76	1		1	10	90						41397	



TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million reactance value				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Baron B	Sili- ca SiO <sub>2</sub>	* Tol- hardness as CaCO <sub>3</sub>	
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																	
WEST COAST HYDRO SUBAREA U05A2																	
5S/13W-9B 2 S 7-12-65	--	8.3	34200	408 20.36 5	912 75.00 18	7440 323.49 76	228 5.83 1	0	570 9.34 2	1620 33.73 6	13500 380.70 90	0	--	--	--	4772	
5S/13W-10G 1 S 8-30-65	63	8.3	45000	440 21.96 4	1250 102.80 18	10250 445.67 77	300 7.67 1	0	247 4.05 1	2600 54.13 9	18300 516.06 90	0	--	--	--	6243	
5S/13W-11C 6 S 8-30-65	66	8.4	46300	456 22.75 4	1280 105.27 18	10500 456.54 77	315 8.05 1	0	304 4.98 1	2610 54.34 9	19000 535.80 90	0	--	--	--	6406	
5S/13W-11H 2 S 7- 9-65	66	7.0	46361	566 28.24 5	1281 105.35 18	10000 434.80 76	264 6.75 1	0	369 6.05 1	2337 46.06 9	18350 517.47 90	0 0.10	1.9	3.50	--	6555	
5S/13W-11H 3 S 7- 9-65	67	6.8	43783	544 27.15 5	1200 98.69 18	9280 403.49 75	208 5.32 1	0	266 4.36 1	2225 46.32 9	17150 483.63 90	6 0.13	1.9	2.50	--	6297	
8-30-65	68	8.2	42700	540 26.95 5	1170 96.22 18	9400 408.71 76	180 4.60 1	0	317 5.20 1	2300 47.89 9	17200 485.04 90	0	--	--	--	6163	
SANTA MONICA HYDRO SUBAREA U05A3																	
1S/15W-32A 5 S 9- 2-65	--	7.9	967	85 4.24 41	42 3.45 34	57 2.48 24	2 0.05	0	256 4.20 42	163 3.39 34	81 2.28 23	1.3 0.02	0.6	0.12	--	385	
																558	

TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million						
				Calcium	Magne- sium	Sodium	Potas- sium	Carbon- ate	Bicar- bonate	Sulfate	Chlor- ide	Ni- trate	Fer- ride	Bore- on	Sili- ca	IDS Eval- uated as Complete
Date sampled				Cc	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SO <sub>2</sub>	
L A SAN GABRIEL RIVER HYDRO UNIT U0500																
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																
SANTA MONICA HYDRO SUBAREA U05A3																
1S/16W-33H 1 S 6-14-65	--	7.3	4666	635 31.69 50	229 18.83 29	301 13.09 21	9 0.23	0	464 7.60 12	2031 42.29 67	453 12.77 20	0	1.2	0.25	--	4267 3888
1S/16W-33J 1 S 6-14-65	--	7.3	13106	794 39.62 25	478 39.31 25	1760 76.52 49	26 0.66	0	154 2.52 2	2825 58.82 38	3340 94.19 60	41 0.66	0.9	1.75	--	9870 9343
2S/14W-19C 1 S 10-5-64	--	8.4	984	73 3.64	28 2.30	--	--	0	374 6.13	--	74 2.09	--	--	--	--	297
12- 1-64	70	8.2	1087	78 3.89 34	30 2.47 21	112 4.87 42	10 0.26 2	0	395 6.47 56	116 2.42 21	96 2.71 23	0	--	--	--	318 636
3- 1-65	71	7.5	1050	73 3.64 33	31 2.55 23	107 4.65 42	11 0.28 3	0	392 6.42 58	106 2.21 20	89 2.51 23	0	--	--	--	310 610
6- 1-65	71	8.2	1060	75 3.74 33	30 2.47 22	110 4.78 43	9 0.23 2	0	402 6.59 58	106 2.21 20	88 2.46 22	0	0.5	--	--	311 616
9- 7-65	70	8.1	1020	75 3.74 33	30 2.47 22	115 5.00 44	8 0.20 2	0	421 6.90 60	100 2.08 18	86 2.43 21	0	--	--	--	311 621
2S/14W-19C 2 S 11- 2-64	72	8.0	1266	82 4.09 30	35 2.88 21	142 6.17 46	11 0.28 2	0	424 6.95 52	118 2.46 18	138 3.89 29	5 0.08 1	--	--	--	349 739

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlor- ide Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Bor- on B	SiO <sub>2</sub>	Total Equiv. Bore Equiv. Calc as CaCO <sub>3</sub>		
COASTAL PL OF LA CO HYDR SUBUNIT U05A0 SANTA MONICA HYDRO SUBAREA U05A3 L A SAN GABRIEL RIVER HYDRO UNIT U0500																		
2S/14W-19C 2 S 1- 4-65	70	8.1	1280	94 4.69 34	43 3.54 25	128 5.57 40	7 0.18 1	0	422 6.92 50	139 2.89 21	144 4.06 29	0	--	--	--	762	412	
4- 7-65	68	7.9	1250	101 5.04 38	38 3.13 23	115 5.00 38	6 0.15 1	0	400 6.56 49	146 3.04 23	132 3.72 28	0	0.5	--	--	735	409	
2S/15W-11C 2 S 1- 5-65	--	7.5	1240	111 5.54 43	51 4.19 32	74 3.22 25	3 0.08 1	0	311 5.10 37	341 7.10 51	59 1.66 12	0.0	0.2	0.12	--	916	487	
2S/15W-11C 3 S 1- 5-65	--	7.5	1140	106 5.29 41	54 4.44 35	69 3.00 23	3 0.08 1	0	311 5.10 41	271 5.64 45	65 1.83 15	0.0	0.2	0.14	--	792	487	
2S/15W-11C 4 S 1- 5-65	--	7.8	990	54 2.69 22	81 6.66 55	63 2.74 23	2 0.05 1	0	307 5.03 41	244 5.08 42	68 1.86 15	12.0 0.19 2	0.2	0.12	--	721	468	
2S/15W-11C 9 S 1- 5-65	--	8.2	990	98 4.89 46	35 2.88 27	64 2.78 26	2 0.05 1	0	309 5.06 48	164 3.41 33	66 1.86 18	10.0 0.16 2	0.2	0.12	--	660	389	
2S/15W-11F 8 S 2- 1-65	70	7.8	1200	112 5.59 42	46 3.78 29	86 3.74 28	2 0.05 1	0	328 5.38 41	221 4.60 35	110 3.10 24	0	--	--	--	738	469	
2- 1-65	70	7.8	1200	112 5.59 42	46 3.78 29	86 3.74 28	2 0.05 1	0	328 5.38 41	221 4.60 35	110 3.10 24	0	--	--	--	738	469	

TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million							
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- co SiO <sub>2</sub>	I.D.S. Evap 105°C as Computed	Total Hardness as CaCO <sub>3</sub>
COASTAL PL OF LA CO HYDR SUBUNIT U05A0 SANTA MONICA HYDRO SUBAREA UU5A3 L A SAN GABRIEL RIVER HYDRO UNIT U0500																	
2S/15W-11F 8 S 4- 7-65	--	7.8	1100	78 3.89 33	37 3.04 26	109 4.74 40	6 0.15 1	0	363 5.95 50	161 3.35 28	91 2.57 22	0	0.5	--	--	661	347
4- 7-65	--	7.8	1100	78 3.89 33	37 3.04 26	109 4.74 40	6 0.15 1	0	363 5.95 50	161 3.35 28	91 2.57 22	0	0.5	--	--	661	347
7-12-65	--	8.3	1229	69 3.44 26	37 3.04 23	147 6.39 49	10 0.26 2	0	397 6.51 50	154 3.21 25	113 3.19 25	0	--	--	--	661	324
7-12-65	--	8.3	1229	69 3.44 26	37 3.04 23	147 6.39 49	10 0.26 2	0	397 6.51 50	154 3.21 25	113 3.19 25	0	--	--	--	725	324
9- 2-65	--	7.8	978	85 4.24 39	36 2.96 27	83 3.61 33	5 0.13 1	0	333 5.46 50	180 3.75 34	61 1.72 16	0	--	--	--	614	360
2S/15W-14C 1 S 1- 5-65	--	7.8	960	74 3.69 32	63 5.18 44	63 2.74 23	2 0.05	0	312 5.11 44	187 3.89 33	90 2.54 22	6.0 0.10 1	0.2	0.18	--	764 639	444
2S/15W-14Q 2 S 10- 5-64	--	8.2	1510	125 6.24	52 4.28	--	--	0	446 7.31	--	146 4.12	--	--	--	--	526	526
11- 2-64	66	7.9	1506	124 6.19 38	50 4.11 25	140 6.09 37	3 0.08	0	438 7.18 43	226 4.71 29	138 3.89 24	46 0.74 4	--	--	--	942	515

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per percent			million reactance value			Mineral constituents in parts per million				
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlor- ide Cl	Ni- trate NO <sub>3</sub>	Flu- oride F	Boron B	Silica SiO <sub>2</sub>	TDS Evap Residue Excl CO <sub>3</sub> as CaCO <sub>3</sub>			
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																			
SANTA MONICA HYDRO SUBAREA U05A3																			
25/15W-14Q 2 S 12- 1-64	57	8.1	1492	124 6.19 39	50 4.11 26	124 5.39 34	3 0.08 1	0	448 7.34 47	221 4.60 29	135 3.81 24	0	--	--	--	877	515		
1- 4-65	52	8.0	1440	116 5.89 37	55 4.52 28	130 5.65 35	2 0.05 0	0	448 7.34 46	211 4.39 27	130 3.67 23	45.2 0.73 5	--	--	--	911	521		
2- 1-65	56	7.7	1490	127 6.34 38	51 4.19 25	136 5.91 36	2 0.05 0	0	453 7.42 45	221 4.60 28	132 3.72 23	46.5 0.75 5	--	--	--	938	527		
3- 1-65	60	7.4	1500	126 6.29 39	51 4.19 26	124 5.39 34	8 0.20 1	0	439 7.20 45	219 4.56 28	133 3.75 23	39.0 0.63 4	--	--	--	916	524		
4- 7-65	59	7.7	1470	126 6.29 39	52 4.28 27	126 5.48 34	2 0.05 0	0	444 7.28 45	218 4.54 28	133 3.75 23	41.6 0.67 4	0.4	--	--	917	529		
5- 3-65	66	7.9	1490	128 6.39 38	52 4.28 26	136 5.91 35	3 0.08 0	0	449 7.36 45	218 4.54 28	135 3.81 23	48.0 0.77 5	0.5	--	--	941	534		
6- 1-65	65	7.9	1530	128 6.39 39	52 4.28 26	133 5.78 35	3 0.08 0	0	450 7.38 44	225 4.68 28	138 3.89 23	40 0.65 4	0.5	--	--	941	534		
7- 6-65	70	7.8	1450	127 6.34 38	51 4.19 25	140 6.09 37	2 0.05 0	0	454 7.44 45	226 4.71 29	130 3.67 22	42 0.68 4	--	--	--	941	527		



TABLE E-1

COASTAL PL OF LA CO HYDR SUBUNIT U05AU	L A SAN GABRIEL RIVER HYDRO UNIT U05U0
SANTA MONICA HYDRO SUBAREA	U05A3

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per reactivity value					Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	Iron	Copper	Zinc
Date sampled				Co	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>	Fe	Cu	Zn
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																		
SANTA MONICA HYDRO SUBAREA																		
U05A3																		
2S/15W-22E 3 S 1-25-65	--	7.6	10100	576 28.74 27	306 25.17 24	1200 52.18 49	0.41	16	0	324 5.31 5	823 17.13 16	2960 83.47 79	--	--	--	--	6040	2698
6-29-65	69	7.1	7342	364 18.16 24	250 20.56 27	821 35.70 48	0.36	14	0	9 0.15	440 9.16 12	2280 64.30 87	0.4	0.26	--	--	5450 4180	1938
2S/15W-22E 4 S 6-29-65	68	7.5	1960	72 3.59 19	73 6.00 32	210 9.13 49	0.08	3	0	86 1.41 8	183 3.81 21	473 13.34 72	0.3	0.19	--	--	1121 1057	480
2S/15W-22E 5 S 1-25-65	--	7.8	3700	165 8.23 22	87 7.15 19	516 22.44 59	0.13	5	0	408 6.69 18	547 11.39 30	706 19.91 52	--	--	--	--	770	
6-29-65	69	7.3	3632	156 7.78 20	81 6.66 17	545 23.70 62	0.13	5	0	400 6.56 17	521 10.85 29	694 19.51 52	0.5	1.13	--	--	2263 2247	723
2S/15W-22R 3 S 10- 2-64	69	7.7	4400	327 16.32 31	208 17.11 33	425 18.48 35	0.20	8	0	716 11.74 22	373 7.77 15	1181 33.30 63	0.1	0.56	--	--	3318 2875	1673
1-22-65	--	7.8	4670	316 15.77 32	192 15.79 32	400 17.39 35	0.20	8	0	785 12.87 26	351 7.31 15	1030 29.02 59	--	--	--	--	2683	1579
6-30-65	69	7.3	6285	465 23.20 32	293 24.10 33	569 24.74 34	0.23	9	0	866 14.19 20	601 12.51 18	1544 43.54 62	0.6	0.37	--	--	4660 3927	2367

TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					Mineral constituents in parts per million									
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boro- n B	Sul- fa- te SO <sub>2</sub>	Ex- posed Copper Cu	Ex- posed Copper Cu	
L A SAN GABRIEL RIVER HYDRO UNIT U0500																		
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																		
SANTA MONICA HYDRO SUBAREA U05A3																		
25/15W-23A 1 S 10-23-64	--	7.8	3900	267 13.32 31	97 7.98 19	495 21.52 50	5 0.13	0	354 5.80 14	275 5.73 14	1085 30.60 73	4.0 0.06	0.8	1.66	--	3058 2404	1066	
3-29-65	--	7.6	4454	279 13.92 31	100 8.22 18	515 22.39 50	4 0.10	0	356 5.83 13	340 7.08 16	1083 30.54 66	72 1.16 3	0.9	1.50	--	2954 2570	1108	
25/15W-23A 6 S 10-23-64	--	7.4	2650	212 10.58 32	83 6.83 21	350 15.22 46	9 0.23 1	0	333 5.46 17	420 8.74 27	642 18.10 56	0.0 0.02	0.4	0.82	--	2158 1881	871	
3-29-65	--	7.2	3067	198 9.88 31	82 6.74 21	349 15.17 47	6 0.15	0	336 5.51 17	426 8.87 28	618 17.43 55	1.0 0.02	0.8	0.71	--	1978 1847	832	
25/15W-23C 4 S 10-23-64	--	7.8	3000	363 18.11 44	112 9.21 22	325 14.13 34	6 0.15	0	453 7.42 18	882 18.36 45	493 13.90 34	82.0 1.32 3	0.4	0.70	--	2718 2487	1167	
3-29-65	--	7.0	2512	200 9.98 35	91 7.48 27	244 10.61 38	3 0.08	0	457 7.49 27	522 10.87 39	293 8.26 30	77 1.24 4	0.6	0.39	--	1784 1656	874	
25/15W-23C 5 S 10-5-64	68	8.1	2440	198 9.88	82 6.74	--	--	0	448 7.34	--	269 7.59	--	--	--	--	--	832	
12-1-64	66	8.0	4032	264 13.17 33	119 9.79 24	400 17.39 43	4 0.10	0	370 6.06 15	965 20.09 50	494 13.93 35	0	--	--	--	--	1149 2428	

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				Mineral constituents in parts per million					
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	Total hardness as CaCO <sub>3</sub>	
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																	
SANTA MONICA HYDRO SUBAREA U05A3																	
25/15W-23C 5 S 3- 1-65	69	7.4	2990	243 12.13 35	102 8.39 25	314 13.65 40	0.03	1	0	437 7.16 21	678 14.12 41	352 9.93 29	180 2.90 9	--	--	1027	
6- 1-65	69	7.9	2800	230 11.48 39	93 7.65 26	240 10.44 35	3	0	455 7.46 25	630 13.12 43	316 8.91 29	50 0.81 3	0.5	--	--	957	
25/15W-23J 4 S 10-23-64	--	7.5	3500	291 14.52 31	173 14.23 30	415 18.04 38	5	0	590 9.67 21	861 17.93 39	624 17.60 38	51.0 0.82 2	0.4	0.97	--	1439	
3-29-65	--	7.5	3960	246 12.28 30	117 9.62 23	434 18.87 46	8	0	400 6.56 16	437 9.10 22	897 25.30 61	12 0.19	0.8	0.96	--	1096	
25/15W-23N 1 S 10- 5-64	68	8.3	10500	704 35.13	393 32.32	--	--	0	492 8.06	--	3220 90.80	--	--	--	--	3375	
10-23-64	--	7.4	12662	910 45.41 31	452 37.17 25	1500 65.22 44	14	0	487 7.98 5	972 20.24 14	4209 118.69 81	0.0	0.1	1.25	--	4132	
11- 2-64	63	7.7	12400	811 40.47 29	443 36.43 26	1440 62.61 45	13	0	481 7.88 6	1054 21.94 16	3930 110.83 79	0	--	--	--	3848	
12- 1-64	68	7.8	11792	730 36.43 27	436 35.86 27	1400 60.87 46	15	0	482 7.90 6	996 20.74 16	3710 104.62 79	0	--	--	--	3617	

TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

Site well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per percent			million per million value			Mineral constituents in parts per million		
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Silica	Iron	Copper	Lead
Date sampled				Ca	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	SiO <sub>2</sub>	Fe	Cu	Pb
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																	
SANTA MONICA HYDRO SUBAREA U05A3																	
2S/15W-23N 1 S 1- 4-65	58	7.7	8170	468 23.35 25	363 27.85 32	890 36.70 42	0.20	0	630 10.33 11	851 17.72 19	2300 64.86 70	20 0.32	--	--	--	--	2662
2- 1-65	59	7.6	10700	689 34.38 28	392 32.24 27	1240 53.92 45	11	0	523 8.57 7	1010 21.03 17	3220 90.80 75	0	--	--	--	--	3374
3- 1-65	65	7.4	14400	904 45.11 27	542 44.57 27	1710 74.35 45	47	0	482 7.90 5	1100 22.90 14	4800 135.36 81	0	--	--	--	--	4488
4- 29-65	--	7.3	14410	931 46.46 27	550 45.23 27	1800 78.26 46	16	0	494 8.10 5	1039 21.63 13	4940 139.31 82	10 0.16	0.8	1.10	--	--	11405
4- 7-65	64	7.5	5000	342 17.07 31	188 15.46 28	515 22.39 41	4	0	712 11.67 21	724 15.07 27	1010 28.48 51	41.6 0.67 1	--	--	--	--	1628
5- 3-65	70	7.5	7360	488 24.35 30	280 23.03 28	770 33.48 41	7	0	547 8.97 11	761 15.84 20	1990 56.12 69	8.0 0.13	0.9	--	--	--	2371
6- 1-65	62	7.7	8720	510 25.45 27	303 24.92 26	1000 43.48 46	10	0	519 8.51 9	869 18.09 19	2400 67.68 72	0	--	--	--	--	2521
7- 6-65	67	7.4	7130	425 21.21 26	255 20.97 26	880 38.26 47	11	0	527 8.64 11	851 17.72 22	1900 53.56 67	0	--	--	--	--	2111



TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million percent reactance value					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- co SiO <sub>2</sub>	TDS Evap (80°C) Evap (105°C) as CaCO <sub>3</sub>		
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																		
SANTA MONICA HYDRO SUBAREA U05A3																		
L A SAN GABRIEL RIVER HYDRO UNIT U0500																		
2S/15W-23N 1 S 8- 2-65	67	7.6	7150	436 21.76 27	252 20.72 26	850 36.96 46	0.23	9	0	547 8.97 11	830 17.28 22	1900 53.58 67	--	--	--	4546	2126	
9- 7-65	68	7.9	10100	626 31.24 28	357 29.36 26	1200 52.18 46	11 0.28	11	0	506 8.29 7	922 19.20 17	3060 86.29 76	--	--	--	6425	3032	
2S/15W-27L 1 S 10- 1-64	65	8.0	2400	94 4.69 18	63 5.18 20	360 15.65 60	18 0.46 2	18	0	563 9.23 36	5 0.10 63	575 16.22 63	0.1	0.53	--	1392	494	
1-19-65	--	8.1	2460	85 4.24 18	66 5.43 23	318 13.83 58	17 0.43 2	17	0	573 9.39 39	7 0.15 1	521 14.69 61	--	--	--	1396	484	
6-30-65	67	7.5	3750	115 5.74 15	97 7.98 21	531 23.09 62	18 0.46 1	18	0	557 9.13 25	32 0.67 2	945 26.65 72	0.4	0.31	--	1296	687	
2S/15W-27L 2 S 10- 1-64	66	7.8	5400	99 4.94 9	109 8.96 16	980 42.61 74	48 1.23 2	48	0	537 8.80 29	91 1.89 6	706 19.91 65	0.1	0.34	--	2044	696	
6-29-65	67	7.5	20907	154 7.68 3	485 39.89 16	4483 194.92 79	168 4.30 2	168	0	665 10.90 4	616 12.83 5	7790 219.68 90	1.0	0.80	--	2297	2380	
2S/15W-28Q 1 S 1-19-65	--	8.7	17800	136 6.79 4	444 36.51 19	3320 144.35 76	114 2.91 2	114	0	780 12.78 7	897 18.68 10	5670 159.89 84	--	--	--	14081	2167	
																10965		

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million							
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlor- ide Cl	Ni- trate NO <sub>3</sub>	Fluor- ide F	Boron B	Silic- a SiO <sub>2</sub>	Total hardness as CaCO <sub>3</sub>	
COASTAL PL OF LA CO HYDR SUBUNIT U05A0 CENTRAL HYDRO SUBAREA U05A5																	
2S/11W-18C 2 S 8- 9-65	69	7.7	1030	98 4.89 46	20 1.64 15	94 4.09 38	4 0.10 1	0	163 2.67 25	262 5.45 50	90 2.54 23	12 0.19 2	--	--	--	327 660	
2S/11W-18Q 1 S 8- 4-65	63	7.8	998	106 5.29 49	22 1.81 17	82 3.57 33	5 0.13 1	0	192 3.15 30	246 5.12 48	81 2.28 21	5 0.08 1	0.3	--	--	355 642	
2S/11W-19F 2 S 8- 4-65	64	7.8	922	114 5.69 56	23 1.89 19	56 2.43 24	4 0.10 1	0	190 3.11 31	229 4.77 47	74 2.09 21	6 0.10 1	0.4	--	--	379 600	
2S/11W-19L 1 S 10-27-64	--	7.9	980	98 4.89 46	28 2.30 22	75 3.26 31	4 0.10 1	0	191 3.13 26	299 6.23 53	82 2.31 20	9.0 0.15 1	0.4	0.09	--	360 662 689	
4- 1-65	66	7.7	1091	97 4.84 45	22 1.81 17	90 3.91 37	4 0.10 1	0	151 2.47 24	254 5.29 51	92 2.59 25	3 0.05	0.6	0.11	--	333 721 637	
8- 2-65	64	7.8	952	102 5.09 49	22 1.81 18	76 3.30 32	4 0.10 1	0	175 2.87 28	236 4.91 49	80 2.26 22	4 0.06 1	0.5	--	--	345 611	
2S/11W-19M 1 S 8- 2-65	63	7.8	886	100 4.99 52	22 1.81 19	63 2.74 28	4 0.10 1	0	176 2.88 30	214 4.46 47	74 2.09 22	3 0.05 1	0.5	--	--	340 567	
2S/11W-19M 4 S 8- 3-65	63	7.9	971	99 4.94 47	21 1.73 17	84 3.65 35	4 0.10 1	0	156 2.56 25	251 5.23 51	86 2.43 24	3 0.05	--	--	--	334 625	

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in				parts per million equivalents per million				Mineral constituents in parts per million			
				Calcium	Magne- sium	Sodium	Potas- sium	Carbon- ate	Bicar- bonate	Sulfate	Chlo- ride	Ni- trate	Ful- uride	Boron	Total hardness as CaCO <sub>3</sub>
Date sampled				Ca	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	as CaCO <sub>3</sub>
COASTAL PL OF LA CO HYDR SUBUNIT U05AU															
CENTRAL HYDRO SUBAREA U05A5															
L A SAN GABRIEL RIVER HYDRO UNIT U0500															
25/11W-30Q 1 S 2- 9-65	--	7.7	1120	150 7.49 60	29 2.38 19	57 2.48 20	3 0.08 1	0	305 5.00 40	236 4.91 40	78 2.20 18	15 0.24 2	0.2	0.21	790 718
7-20-65	--	7.6	1135	--	--	--	--	--	--	240 5.00	70 1.97	21 0.34	--	--	--
9-29-65	--	7.6	1179	152 7.58 57	36 2.96 22	61 2.65 20	4 0.10 1	0	339 5.56 43	251 5.23 40	69 1.95 15	20 0.32 2	0.5	0.18	822 760
25/12W- 1R 2 S 10-27-64	--	7.9	980	85 4.24 40	22 1.81 17	101 4.39 42	4 0.10 1	0	199 3.26 31	211 4.39 42	97 2.74 26	0.0 0.0	0.2	0.14	641 618
4- 1-65	--	8.0	1000	74 3.69 35	26 2.14 20	103 4.48 43	6 0.15 1	0	209 3.43 33	191 3.98 39	99 2.79 27	3 0.05	0.4	0.24	640 605
8- 9-65	78	8.2	1250	72 3.59 28	24 1.97 15	170 7.39 57	4 0.10 1	0	141 2.31 18	349 7.27 56	123 3.47 27	0	--	--	278 811
25/12W- 9M 2 S 8- 9-65	77	8.1	866	59 2.94 34	20 1.64 19	94 4.09 47	3 0.08 1	0	270 4.43 50	50 1.04 12	120 3.38 38	0	--	--	229 479
25/12W-10J 1 S 2- 9-65	--	8.0	570	48 2.40 42	13 1.07 19	51 2.22 38	3 0.08 1	0	266 4.36 74	17 0.35 6	41 1.16 20	0.0 0.0	0.2	0.24	340 304

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					Mineral constituents in parts per million									
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Flu- oride F	Boron B	Sili- co SiO <sub>2</sub>	TDS Excl Boor Excl NO <sub>3</sub> as CaSO <sub>4</sub>		
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																		
CENTRAL HYDRO SUBAREA U05A5																		
2S/12W-10J 1 S 9-29-65	--	7.7	565	55 2.74 47	11 0.90 15	49 2.13 36	3 0.08 1	0	240 3.93 66	36 0.75 13	43 1.21 20	1 0.02	0.3	0.21	--	337 317	182	
2S/12W-12E 2 S 7-20-65	--	7.5	804	--	--	--	--	--	--	153 3.19	61 1.72	2 0.03	--	--	--	--	--	
2S/12W-12F 6 S 2- 9-65	--	7.8	800	72 3.59 43	30 2.47 29	52 2.26 27	4 0.10 1	0	228 3.74 45	131 2.73 33	64 1.80 22	0.0	0.2	0.14	--	512 465	303	
2S/12W-12M 2 S 8- 9-65	7.0	8.0	844	98 4.89 54	18 1.48 16	60 2.61 29	4 0.10 1	0	224 3.67 41	162 3.37 37	69 1.95 22	0	--	--	--	521	319	
9-29-65	--	7.6	664	61 3.04 44	11 0.90 13	65 2.83 41	3 0.08 1	0	226 3.70 54	92 1.92 28	43 1.21 18	3 0.05 1	0.4	0.19	--	405 390	197	
2S/12W-13D 7 S 10-27-64	--	7.9	970	76 3.79 37	36 2.96 29	78 3.39 33	4 0.10 1	0	205 3.36 33	210 4.37 43	80 2.26 22	8.0 0.13 1	0.2	0.14	--	642 593	338	
4- 2-65	--	7.9	980	103 5.14 48	22 1.81 17	82 3.57 34	4 0.10 1	0	192 3.15 30	230 4.79 46	85 2.40 23	7 0.11 1	0.2	0.11	--	660 628	368	
7-20-65	--	7.3	978	--	--	--	--	--	--	217 4.52	82 2.31	7 0.11	--	--	--	--	--	

TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				million value				Mineral constituents in parts per million			
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Ferric oxide F	Boron B	Silica SiO <sub>2</sub>	TDS Evap 100°C as Computed CaCO <sub>3</sub>	Total Hardness as CaCO <sub>3</sub>		
Date sampled																			
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																			
CENTRAL HYDRO SUBAREA U05A5																			
L A SAN GABRIEL RIVER HYDRO UNIT U0500																			
25/12W-13D 7 S 8- 9-65	81	7.9	990	99 4.94	22 1.81	85 3.70	4 0.10	0	190 3.11	233 4.85	86 2.43	7 0.11	--	--	--	--	629	338	
25/12W-13M 2 S 8-10-65	66	8.3	914	109 5.44	19 1.56	65 2.83	4 0.10	0	204 3.34	206 4.29	75 2.12	8 0.13	--	--	--	--	586	350	
25/12W-13M 3 S 8-10-65	64	8.3	1020	100 4.99	21 1.73	90 3.91	5 0.13	0	157 2.57	263 5.48	91 2.57	9 0.15	--	--	--	--	656	336	
25/12W-13M 4 S 8-10-65	63	8.3	1000	98 4.89	21 1.73	90 3.91	4 0.10	0	161 2.64	256 5.33	88 2.48	8 0.13	--	--	--	--	644	331	
25/12W-14B 2 S 2- 9-65	--	7.6	1020	100 4.99	23 1.89	85 3.70	5 0.13	0	202 3.31	219 4.56	92 2.59	7 0.11	0.2	0.14	--	--	630	344	
25/12W-14B 8 S 8-10-65	69	7.9	1050	91 4.54	23 1.89	100 4.35	5 0.13	0	166 2.72	260 5.41	94 2.65	10 0.16	--	--	--	--	631	322	
9-29-65	--	7.5	998	103 5.14	22 1.81	76 3.30	5 0.13	0	195 3.20	223 4.64	84 2.37	7 0.11	0.4	0.16	--	--	665	348	
25/12W-19C 1 S 8-30-65	75	8.5	616	56 2.79	16 1.32	52 2.26	3 0.08	0	223 3.65	72 1.50	45 1.27	0	--	--	--	--	616	206	
				43	20	35	1		57	23	20						354		



TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million							
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	Total dissolved solids as Computed	Total dissolved solids as Collected
COASTAL PL OF LA CO HYDR SUBUNIT U05AU CENTRAL HYDRO SUBAREA U05A5																	
25/12W-21B 5 S 2- 9-65	--	8.2	720	70 3.49	40 3.29	50 2.17	3 0.08	0	197 3.23	177 3.69	67 1.89	3.0 0.05	0.2	0.24	--	526 339	
7-20-65	--	7.6	824	--	--	--	--	--	--	--	186 3.87	63 1.78	2 0.03	--	--	507	
9-29-65	--	7.5	846	96 4.79	22 1.81	49 2.13	3 0.08	0	186 3.05	183 3.81	66 1.86	3 0.05	0.4	0.18	--	540 330	
25/12W-21J 1 S 8- 2-65	73	8.0	828	54 2.1	18 1.48	54 2.35	3 0.08	0	187 3.06	185 3.85	66 1.86	3 0.05	0.3	--	--	329	
25/12W-22J 1 S 8- 3-65	66	7.9	1020	57 2.1	16 1.48	26 2.95	1 0.05	0	165 2.70	266 5.54	90 2.54	9 0.15	0.5	--	--	344	
25/12W-23B 4 S 8- 3-65	64	8.2	844	46 1.9	16 1.48	37 2.61	1 0.13	0	187 3.06	188 3.91	70 1.97	7 0.11	--	--	--	314	
25/12W-24E 6 S 2- 9-65	--	8.0	830	53 2.1	27 2.22	58 2.52	4 0.10	0	227 3.72	223 4.64	78 2.20	9.0 0.15	0.2	0.17	--	418	
7-20-65	--	7.3	952	--	--	--	--	--	--	213 4.43	72 2.03	11 0.18	--	--	--	660 634	

TABLE E-1

COASTAL PL OF LA CO HYDR SUBUNIT U05A0  
CENTRAL HYDRO SUBAREA  
U05A5  
L A SAN GABRIEL RIVER HYDRO UNIT U0500

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent					Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	TDS Evap Residue Excl. SO <sub>4</sub> , NO <sub>3</sub> , F, SiO <sub>2</sub>		
COASTAL PL OF LA CO HYDR SUBUNIT U05A0 CENTRAL HYDRO SUBAREA U05A5 L A SAN GABRIEL RIVER HYDRO UNIT U0500																		
2S/12W-25P 7 S 10-27-64	--	7.4	931	100 4.89 51	22 1.81 19	65 2.03 29	4 0.10 1	0	194 3.18 33	215 4.48 46	69 1.95 20	5.0 0.08 1	0.6	0.10	25	653 601	340	
4- 1-65	--	8.2	990	58 2.89 28	49 4.03 39	73 3.17 31	5 0.13 1	0	173 2.84 28	229 4.77 47	85 2.40 24	6 0.10 1	0.2	0.20	--	714 590	346	
2S/12W-25Q 5 S 7-20-65	--	7.7	542	--	--	--	--	--	--	61 1.27	19 0.54	5 0.08	--	--	--	--	222	
8-11-65	66	8.4	939	66 3.29 57	14 1.15 20	30 1.30 22	2 0.05 1	0	236 3.87 67	63 1.31 23	17 0.48 8	6.0 0.10 2	--	--	--	314	222	
9-29-65	--	7.8	543	66 3.29 57	14 1.15 20	30 1.30 22	3 0.06 1	0	236 3.87 67	64 1.33 23	18 0.51 9	5 0.08 1	0.4	0.07	--	310 316	222	
2S/12W-26E 3 S 2- 9-65	--	7.8	880	102 5.39 50	29 2.38 25	60 2.61 26	4 0.10 1	0	201 3.29 32	223 4.64 45	77 2.17 21	13.0 0.21 2	0.2	0.14	--	620 607	374	
7-2 -65	--	7.5	930	--	--	--	--	--	--	205 4.27	73 2.06	14 0.23	--	--	--	--	--	
9-27-65	--	7.9	942	102 5.39 51	29 2.38 19	60 2.78 26	5 0.13 1	0	196 3.21 33	207 4.31 44	74 2.09 21	14 0.23 2	0.5	0.13	--	615 586	349	

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million reactance value					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fuo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	I.D.S. Exap (BOC) Exap (OSC) Computed	Total Hardness as CaCO <sub>3</sub>	
COASTAL PL OF LA CO HYDR SUBUNIT U05A0 CENTRAL HYDRO SUBAREA U05A5 L A SAN GABRIEL RIVER HYDRO UNIT U0500																		
2S/12W-27C 1 S 8- 2-65	65	8.1	942	97 4.84 47	19 1.56 15	86 3.74 36	5 0.13 1	0	172 2.82 28	232 4.83 48	80 2.20 22	10 0.16 2	0.5	--	--	--	320	
2S/12W-27G 5 S 8- 2-65	70	7.9	830	102 5.09 56	19 1.56 17	53 2.30 25	4 0.10 1	0	168 2.75 31	199 4.14 46	68 1.92 22	6 0.10 1	0.5	--	--	534	333	
2S/12W-28A 4 S 2- 9-65	--	8.1	1060	45 2.25 18	18 1.48 12	200 8.70 69	5 0.13 1	0	157 2.57 21	322 6.70 54	113 3.19 26	1.0 0.02	0.2	0.22	--	770	187	
7-20-65	--	7.5	1009	--	--	--	--	--	--	252 5.25	87 2.45	1 0.02	--	--	--	--	--	
9-29-65	--	7.8	1170	67 3.34 28	20 1.64 14	153 6.65 57	5 0.13 1	0	150 2.46 21	297 6.18 53	108 3.05 26	1 0.02	0.5	0.18	--	740	249	
2S/12W-29A 4 S 8- 2-65	64	8.0	759	94 4.69 57	19 1.56 19	44 1.91 23	3 0.08 1	0	218 3.57 44	141 2.94 36	54 1.52 19	8 0.13 2	0.4	--	--	725	313	
2S/12W-30H 2 S 11- 2-64	--	7.9	720	75 3.74 51	18 1.48 20	47 2.04 28	3 0.08 1	0	214 3.51 48	115 2.39 32	50 1.41 19	4.0 0.06 1	0.2	0.02	--	471	261	
4- 1-65	--	7.7	690	83 4.14 55	16 1.32 17	47 2.04 27	3 0.08 1	0	220 3.61 49	112 2.33 31	50 1.41 19	4 0.06 1	0.2	0.12	--	458	273	
																423		

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Date sampled	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent reactance value					Mineral constituents in parts per million				
					Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	Total Hard- ness as CaCO <sub>3</sub>		
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																			
CENTRAL HYDRO SUBAREA U05A5																			
25/12W-31M 2 S 8-20-65		70	8.5	638	69 3.44 51	18 1.48 22	41 1.78 26	2 0.05 1	0	258 4.23 63	68 1.42 21	39 1.10 16	0	--	--	--	--	246	
25/12W-34P 1 S 11-2-64		--	8.0	780	102 5.09 61	21 1.73 21	33 1.43 17	4 0.10 1	0	227 3.72 46	145 3.02 37	45 1.27 16	9.0 0.15 2	0.4	0.02	--	--	341	
3-27-65		65	7.8	781	102 5.09 63	20 1.64 20	29 1.26 16	4 0.10 1	0	230 3.77 46	140 2.91 36	46 1.30 16	10 0.16 2	0.5	0.07	--	--	337	
23/12W-34R 1 S 8-3-65		68	8.1	643	82 4.09 59	17 1.40 20	32 1.39 20	4 0.10 1	0	222 3.64 53	109 2.27 33	33 0.93 13	5 0.08 1	0.4	--	--	--	275	
25/12W-350 2 S 2-9-65		--	7.9	770	105 5.24 57	26 2.14 23	38 1.65 18	4 0.10 1	0	173 2.84 31	216 4.50 48	67 1.89 20	4.0 0.06 1	0.4	0.24	--	--	369	
7-20-65		--	7.4	862	--	--	--	--	--	--	207 4.31	66 1.86	5 0.08	--	--	--	--	546	
8-3-65		65	8.0	860	109 5.44 59	22 1.81 20	44 1.91 21	4 0.10 1	0	170 2.79 30	217 4.52 49	66 1.86 20	5 0.06 1	0.5	--	--	--	363	
9-24-65		--	7.4	877	112 5.59 60	25 2.06 22	37 1.61 17	4 0.10 1	0	192 3.15 34	201 4.18 45	63 1.76 19	8 0.13 1	0.6	0.10	--	--	363	



TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million reactance value				Mineral constituents in parts per million				
				Calcium	Magne-sium	Sodium	Potas-sium	Carbon-ate	Bicar-bonate	Sulfate	Chlo-ride	Ni-troate	Fluo-ride	Boron	Sili-co	Total I.D.S. Evap. 180°C as Computed
Date sampled				Co	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>	Colloids
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																
CENTRAL HYDRO SUBAREA U05A5																
2S/12W-36P 1 S 8-11-65	68	8.0	984	109 5.44 52	23 1.89 18	70 3.04 29	4 0.10 1	0	158 2.59 24	263 5.48 52	85 2.40 23	7.0 0.11 1	--	--	--	367
2S/13W-10P 6 S 6-17-65	66	7.6	689	71 3.54 48	20 1.64 22	48 2.09 28	4 0.10 1	0	242 3.97 55	103 2.14 30	55 0.59 14	8 0.13 2	0.5	0.15	--	259
2S/13W-10Q 5 S 6-17-65	64	7.7	703	73 3.64 48	20 1.64 22	50 2.17 29	4 0.10 1	0	246 4.03 54	107 2.23 30	59 1.10 15	3 0.05 1	0.6	0.20	--	264
2S/13W-12C 1 S 6-17-65	71	7.9	601	60 2.99 45	17 1.40 21	48 2.09 32	4 0.10 2	0	242 3.97 62	81 1.69 26	28 0.79 12	0	0.6	0.18	--	220
2S/13W-12K 1 S 7-15-65	68	7.8	320	6 0.30 10	4 0.33 11	51 2.22 76	3 0.08 3	0	56 0.92 32	0	68 1.92 67	1 0.02 1	0.6	0.08	--	32
2S/13W-15N 3 S 6-17-65	65	7.7	633	67 3.34 49	17 1.40 21	45 1.96 29	3 0.08 1	0	237 3.88 58	97 2.02 30	26 0.73 11	2 0.03	0.5	0.16	--	237
2S/13W-25H 3 S 6-17-65	72	7.7	563	54 2.69 45	13 1.07 18	48 2.09 35	3 0.08 1	0	222 3.64 62	67 1.39 24	29 0.82 14	0	0.5	0.14	--	188
2S/13W-28H 1 S 6-17-65	63	7.6	781	84 4.19 50	22 1.81 22	51 2.22 27	4 0.10 1	0	244 4.00 49	122 2.54 31	53 1.49 18	10 0.16 2	0.6	0.15	--	300
																467

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million percent reactance value					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sod-um Na	Potas- sium K	Carbon ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Flu- oride F	Bor- on B	% co- S <sub>2</sub> O <sub>3</sub>	Evap- orated % DOC	Hardness as CaCO <sub>3</sub>	Compu- ted CaCO <sub>3</sub>
COASTAL PL OF LA CO HYDR SUBUNIT U05A0 CENTRAL HYDRO SUBAREA U05A5 L A SAN GABRIEL RIVER HYDRO UNIT U0500																		
2S/13W-32R11 S 7- 6-65	57	8.0	577	62 3.09 52	12 0.59 17	41 1.78 30	3 0.08 1	0	226 3.70 62	75 1.56 26	25 0.71 12	0.8 0.01	0.4	0.06	--	323 330	204	
2S/14W-5D B S 1-21-65	--	8.0	1110	74 3.69 30	38 3.13 26	120 5.22 43	4 0.10 1	0	428 7.01 58	113 2.35 19	79 2.17 23	0	--	--	--	341		
4- 7-65	71	7.9	1180	82 4.09 32	43 3.54 28	115 5.00 39	4 0.10 1	0	422 6.92 54	144 3.00 24	100 2.82 22	0	--	--	--	382		
2S/14W-14C S 11- 2-64	--	8.0	644	70 3.49 51	16 1.32 19	45 1.96 29	4 0.10 1	0	249 4.08 59	89 1.85 27	30 0.85 12	6.0 0.10 1	0.7	0.13	24	390 407	241	
4- 1-65	--	8.0	730	69 3.44 44	24 1.77 25	52 2.26 29	4 0.10 1	0	264 4.33 56	98 2.04 27	41 1.10 15	10 0.16 2	0.2	0.18	--	420 428	271	
2S/14W-22P 2 11- 2-64	--	7.7	674	68 3.37 46	15 1.25 17	54 2.35 33	4 0.10 1	0	256 4.20 59	83 1.73 24	40 1.15 16	2.0 0.05	0.4	0.14	30	405 422	251	
2S/14W-23H 3 11- 2-64	--	7.5	755	63 4.14 51	27 1.81 22	48 2.09 26	4 0.10 1	0	266 4.36 53	108 2.27 27	50 1.41 17	11.0 0.18 2	0.6	0.13	25	505 482	298	
2S/14W-23H1 S 11- 2-64	--	8.0	675	74 3.69 51	18 1.48 21	44 1.91 27	4 0.10 1	0	246 4.03 57	90 1.87 26	35 0.99 14	15.0 0.21 3	0.6	0.13	24	439 424	257	

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per percent					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	TDS Evap. Residue at 105°C Computed CaCO <sub>3</sub>	Total hardness as CaCO <sub>3</sub>	
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																		
CENTRAL HYDRO SUBAREA U05A5																		
LA SAN GABRIEL RIVER HYDRO UNIT U0500																		
25/14W-23H12 S 4- 7-65	--	8.2	620	68 3.39	16 1.32	45 1.96	3 0.08	0	252 4.13	79 1.64	35 0.99	5 0.08	0.4	0.16	--	400	236	
35/11W- 6K 4 S 8-16-65	75	8.4	1630	178 8.88	58 4.77	110 4.78	4 0.10	0	470 7.70	258 5.37	195 5.50	0	--	--	--	375	683	
35/11W-20J 6 S 8-12-65	--	7.9	387	37 1.85	12 0.99	28 1.22	3 0.08	0	205 3.36	20 0.42	15 0.42	0	0.5	0.06	--	230	142	
35/11W-20R 7 S 8-12-65	--	7.9	653	81 4.04	18 1.48	35 1.52	3 0.08	0	303 4.97	53 1.10	36 1.02	0	0.5	0.07	--	398	276	
35/11W-27G 1 S 10-27-64	--	8.0	450	8 0.40	1 0.08	93 4.04	2 0.05	0	177 2.90	54 1.12	18 0.51	0.0	0.6	0.05	--	286	24	
4- 1-65	--	8.0	1180	129 6.44	28 2.30	98 4.26	3 0.08	0	305 5.00	220 4.58	122 3.44	0.0	0.2	0.24	--	780	437	
35/11W-28P 5 S 10-27-64	--	8.1	570	47 2.35	18 1.48	50 2.17	2 0.05	0	228 3.74	59 1.23	39 1.10	0.0	0.4	0.05	--	340	192	
4- 1-65	--	7.7	550	56 2.79	11 0.90	51 2.22	3 0.08	0	217 3.56	58 1.21	39 1.10	0	0.4	0.12	--	338	185	
				47	15	37	1		61	21	19					325		

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent reactance value					Mineral constituents in parts per million				
				Calcium Mg	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- co SiO <sub>2</sub>	Fe <sup>2+</sup> Evap 180°C Hardness Evap 105°C as CaCO <sub>3</sub>		
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																		
CENTRAL HYDRO SUBAREA U05A5																		
3S/11W-29H 1 S 6-16-65	--	8.0	442	47 2.35 49	10 0.82 17	36 1.57 33	2 0.05 1	0	222 3.64 77	18 0.37 8	25 0.71 15	1 0.02	0.4	0.06	--	250 249	159	
3S/11W-30H 4 S 8-12-65	--	7.8	1225	91 4.54 36	35 2.88 23	119 5.17 41	6 0.15 1	0	142 2.53 18	338 7.04 56	116 3.27 26	1 0.02	0.6	0.15	--	814 777	371	
3S/11W-30M 3 S 6-22-65	--	8.0	1310	76 3.79 29	20 1.64 12	174 7.57 58	6 0.15 1	0	164 2.69 20	276 5.75 43	166 4.68 35	19 0.31 2	--	--	--	272	272	
3S/11W-30P 2 S 6-16-65	68	8.1	497	62 3.09 58	14 1.15 21	24 1.04 19	3 0.08 1	0	247 4.05 75	43 0.90 17	17 0.48 9	0	0.5	0.05	--	310 285	212	
3S/12W-1F 6 S 8-9-65	64	8.1	942	114 5.69 55	24 1.97 19	58 2.52 25	4 0.10 1	0	185 3.03 30	230 4.79 47	76 2.20 22	6 0.10 1	--	--	--	605	383	
3S/12W-1K 1 S 2-9-65	--	8.0	990	85 4.24 41	47 3.87 36	47 2.04 20	4 0.10 1	0	287 4.70 46	163 3.39 35	66 1.86 18	15 0.24 2	0.2	0.21	--	662 569	406	
7-25-65	--	7.4	951	--	--	--	--	--	--	189 3.93	64 1.80	12 0.19	--	--	--	--	--	
9-29-65	--	7.4	977	127 6.34 60	29 2.36 22	42 1.85 17	4 0.10 1	0	261 4.28 41	201 4.18 40	66 1.92 18	9 0.15 1	0.4	0.12	--	648 609	436	

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million reactance value				Mineral constituents in parts per million					
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	TDS Evap residue as CaCO <sub>3</sub> Computed	
COASTAL PL OF LA CO HYDR SUBUNIT U05A0 CENTRAL HYDRO SUBAREA U05A5																	
35/12W-2H 4 S 8- 4-65	64	8.1	784	98 4.89 57	20 1.64 19	44 1.91 22	3 0.08 1	0	192 3.15 37	175 3.64 43	55 1.55 18	5 0.08 1	0.3	--	--	327	
35/12W-3M 1 S 8- 2-65	72	7.9	1050	97 4.84 42	28 2.30 20	95 4.13 36	5 0.13 1	0	168 2.75 24	281 5.85 52	91 2.57 23	5 0.08 1	0.6	--	--	357	
35/12W-5D 3 S 8-12-65	--	7.2	1589	211 10.53 62	47 3.87 23	60 2.61 15	4 0.10 1	0	278 4.56 27	252 5.25 31	258 6.71 39	55 0.56 3	0.6	0.24	--	721	
35/12W-5M 1 S 8- 2-65	66	8.3	710	96 4.79 62	18 1.48 19	33 1.43 18	3 0.08 1	0	24 0.39 10	120 2.50 61	36 1.02 25	11 0.18 4	--	--	--	314	
35/12W-8F 1 S 10-27-64	--	7.8	550	47 2.35 39	18 1.46 25	49 2.13 35	3 0.08 1	0	239 3.92 56	54 1.12 16	67 1.89 27	6.0 0.10 1	0.8	0.17	--	192	
4- 1-65	--	8.2	550	46 2.30 39	23 1.89 32	39 1.70 28	3 0.08 1	0	261 4.28 73	37 0.77 13	24 0.68 12	6 0.10 2	0.2	0.11	--	210	
35/12W-11F 4 S 8- 4-65	63	8.0	836	109 5.44 60	22 1.81 20	40 1.74 19	4 0.10 1	0	202 3.31 37	189 3.93 44	60 1.89 19	5 0.08 1	0.5	--	--	363	
35/12W-11E 1 S 2- 9-65	--	7.8	670	49 2.45 36	36 2.96 43	32 1.39 20	4 0.10 1	0	240 3.93 56	91 1.89 27	40 1.13 16	7 0.11 2	0.2	0.09	--	271	
																377	



TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million				Mineral constituents in parts per million			
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Sulfide	Silica	Trace elements
Date sampled				Ca	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	SiO <sub>2</sub>	mg/l	ppm
COASTAL PL OF LA CO HYDR SUBUNIT U05A0															
CENTRAL HYDRO SUBAREA U05A5															
LA SAN GABRIEL RIVER HYDRO UNIT U0500															
3S/12W-11E 1 S 7-20-65	--	7.6	739	--	--	--	--	--	--	135	30	0	--	--	--
9-29-65	--	7.4	744	96	22	31	4	0	232	140	41	0	0.5	0.08	477
				4.79	1.81	1.35	0.10		3.80	2.91	1.16	0.13			457
				50	22	17	1		48	36	15	2			
3S/12W-11F 11 3- 4-65	6.1	7.7	739	97	20	33	4	0	232	140	40	0	0.4	--	324
				4.84	1.64	1.43	0.10		3.80	2.91	1.15	0.13			
				50	20	18	1		48	37	14	2			456
3S/12W-14C 6 3- 4-65	6.6	8.1	709	94	19	32	5	0	231	140	39	0	0.4	--	313
				4.69	1.56	1.39	0.13		3.79	2.71	1.10	0.13			
				60	20	18	2		49	35	14	2			441
3S/12W-17E 1 S 7-14-65	6.8	7.8	750	59	12	42	3	0	227	88	24	1	0.7	0.14	350
				2.94	0.79	1.83	0.08		3.75	1.42	0.62	0.04			197
				40	17	31	1		69	24	11				310
3S/12W-25K 1 10-27-64	--	8.1	450	48	16	25	3	0	257	12	13	0.0	0.2	0.07	172
				2.48	1.48	1.09	0.08		4.38	0.79	0.57				150
				48	29	22			98	9	7				
3S/12W-33A 1 S 10-30-64	--	7.7	408	54	9	19	2	0	240	13	8	1.5	0.0	0.00	149
				2.69	0.74	0.85	0.05		3.87	0.77	0.23	0.01			351
				62	17	19	1		88	6	5				168
4- 1-65	6.6	7.9	428	54	9	21	2	0	247	16	10	0	0.0	0.00	172
				2.69	0.74	0.86	0.05		3.87	0.83	0.20				151
				61	17	22	1		97	7	6				

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million									
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	IDS Evap 180°C Evap 105°C as CaCO <sub>3</sub>			
Date sampled																			
COASTAL PL OF LA CO HYDR SUBUNIT U05A0 CENTRAL HYDRO SUBAREA U05A5 L A SAN GABRIEL RIVER HYDRO UNIT U0500																			
3S/12W-35B 4 S 6-16-65	--	7.7	559	77 3.84 63	14 1.15 19	24 1.04 17	0.08	3	0	273 4.47 74	46 0.96 16	22 0.62 10	0	0.5	0.05	--	335 321	250	
3S/12W-35K 1 S 4- 1-65	--	8.1	480	49 2.45 48	18 1.48 29	26 1.13 22	0.08	3	0	270 4.43 87	12 0.25 5	12 0.42 8	0.0	0.2	0.13	--	276 256	197	
3S/13W-11E 1 S 8-30-65	66	8.3	500	36 1.80 36	11 0.90 18	51 2.22 45	0.05	2	0	176 2.88 57	58 1.21 24	34 0.76 19	0	--	--	--	135 279	135	
3S/13W-12Q11 S 8-30-65	77	8.4	668	66 3.29 46	16 1.32 18	58 2.52 35	0.08	3	0	220 3.61 50	114 2.37 33	42 1.18 16	0	--	--	--	407	231	
3S/13W-25G 2 S 8-30-65	72	8.3	826	97 4.84 54	21 1.73 19	55 2.39 26	0.08	3	0	273 4.47 50	144 3.00 33	53 1.49 17	0	--	--	--	507	329	
3S/13W-34H 2 S 10-30-64	--	7.8	700	71 3.54 48	10 0.82 11	66 2.87 39	0.08	3	0	205 3.36 47	60 1.37 19	87 2.45 34	0.0	0.2	0.05	--	402	218	
4S/11W- 5M 2 S 8- 2-65	--	8.2	415	45 2.25 49	9 0.74 16	35 1.52 33	0.05	2	0	232 3.80 84	20 0.42 9	11 0.31 7	1 0.02	0.6	0.06	--	404	150	
4S/11W- 8M 2 S 7- 8-65	--	8.0	463	46 2.30 48	8 0.66 14	40 1.74 37	0.05	2	0	220 3.61 74	39 0.81 17	16 0.45 9	1.0 0.02	0.6	0.04	--	238	148	
																	261		

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million reactance value					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fuc- ride F	Bor- on B	Sil- ica SiO <sub>2</sub>	Ex- posed Evap- orated as Compu- tation		
L A SAN GABRIEL RIVER HYDRO UNIT U0500																		
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																		
CENTRAL HYDRO SUBAREA U05A5																		
45/12W-1D 5 5 7-8-65	--	7.6	1724	246 12.28 67	46 3.78 21	51 2.22 12	4 0.10 1	0	498 8.16 45	224 4.66 25	192 5.41 30	3 0.05	0.5	0.11	--	1102	804	
45/12W-1F 3 5 7-8-65	--	7.9	453	60 2.99 63	9 0.74 16	22 0.96 20	3 0.08 2	0	248 4.06 85	20 0.42 9	11 0.31 6	0	0.5	0.04	--	235	187	
45/12W-2A 5 5 6-16-65	--	8.2	504	66 3.29 59	13 1.07 15	25 1.09 20	3 0.08 1	0	263 4.31 79	26 0.54 10	22 0.62 11	1 0.02	0.5	0.06	--	305	218	
45/12W-6D 1 5 11-4-64	--	8.5	447	45 2.25	4 0.33	42 1.83	3 0.08	5 0.17	172 2.82	40 0.83	23 0.65	--	--	--	16	300	129	
12-1-64	--	8.0	430	48 2.40	5 0.41	50 2.17	3 0.08	0	185 3.03	37 0.77	27 0.76	--	--	--	22	310	141	
12-30-64	--	8.0	537	62 3.09	6 0.49	50 2.17	4 0.10	0	216 3.54	33 0.69	33 0.93	--	--	--	21	316	179	
2-7-65	--	8.2	543	46 2.30	5 0.41	51 2.22	3 0.08	0	215 3.52	33 0.69	32 0.90	--	--	--	16	320	136	
3-2-65	--	8.2	454	45 2.25	4 0.33	47 2.04	3 0.08	0	182 2.98	41 0.85	24 0.68	--	--	--	17	335	129	

TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent reactance value					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fer- ride Fe	Bor- on B	Sil- ica SiO <sub>2</sub>	Total Hardness ppm	Total Hardness ppm	
COASTAL PL OF LA CO HYDR SUBUNIT U05A0 CENTRAL HYDRO SUBAREA U05A5 L A SAN GABRIEL RIVER HYDRO UNIT U0500																		
4S/12W- 6D 1 S 3-30-65	--	8.5	465	44 2.20	5 0.41	49 2.13	3 0.08	4 0.13	184 3.02	27 0.56	23 0.65	--	--	--	22	298	131	
5- 4-65	--	8.1	433	28 1.40	7 0.58	52 2.26	3 0.08	0	188 3.08	26 0.54	25 0.71	--	--	--	22	282	99	
6- 1-65	--	8.0	478	43 2.15	7 0.58	50 2.17	3 0.08	0	193 3.16	29 0.60	25 0.71	--	--	--	21	306	137	
6-29-65	--	8.2	484	42 2.10	6 0.49	47 2.04	3 0.08	0	193 3.16	29 0.60	25 0.71	--	--	--	22	317	130	
4S/12W- 6D 3 S 11- 4-64	--	8.3	382	32 1.60	3 0.25	42 1.83	2 0.05	0	165 2.70	28 0.58	19 0.54	--	--	--	18	250	93	
12- 1-64	--	7.9	520	61 3.04	6 0.49	48 2.09	3 0.08	0	212 3.47	44 0.92	35 0.99	--	--	--	22	354	177	
12-30-64	--	8.2	482	50 2.50	4 0.33	46 2.00	3 0.08	0	189 3.10	33 0.69	25 0.71	--	--	--	23	292	142	
2- 2-65	--	8.2	467	43 2.15	4 0.33	50 2.17	3 0.08	0	187 3.06	30 0.62	27 0.76	--	--	--	17	286	124	

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent			parts per million			Mineral constituents in parts per million		
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	Total dissolved solids
Date sampled				Cc	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>	ppm
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																
CENTRAL HYDRO SUBAREA U05A5																
45/12W-6D 3 S 3-2-65	--	8.4	387	49 2.45	4 0.33	41 1.78	3 0.08	7 0.23	159 2.61	20 0.42	19 0.54	--	--	--	21	159
3-30-65	--	8.5	400	34 1.70	3 0.25	40 1.74	3 0.08	4 0.13	167 2.74	21 0.44	19 0.54	--	--	--	21	159
5-4-65	--	8.2	365	31 1.55	2 0.16	42 1.83	2 0.05	0	162 2.66	21 0.44	21 0.59	--	--	--	21	159
6-1-65	--	8.1	393	31 1.55	6 0.49	50 2.17	2 0.05	0	165 2.70	29 0.60	20 0.56	--	--	--	20	159
6-29-65	--	8.2	413	30 1.50	3 0.25	48 2.09	2 0.05	0	162 2.66	19 0.40	18 0.51	--	--	--	21	159
8-31-65	81	8.3	375	32 1.60	4 0.33	49 2.13	3 0.08	0	166 2.72	--	--	--	--	--	19	159
9-28-65	78	8.3	404	32 1.60	3 0.25	54 2.35	4 0.10	1 0.03	168 2.75	37 0.77	19 0.54	--	--	--	21	159
45/12W-6J 1 S 6-1-65	--	8.6	386	10 0.50	1 0.08	71 3.09	1 0.03	9 0.30	161 2.64	0	31 0.87	--	--	--	19	159



TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fuo- ride F	Boron B	SiO <sub>2</sub>	Total hardness as CaCO <sub>3</sub>	
COASTAL PL OF LA CO HYDR SUBUNIT U05A0 CENTRAL HYDRO SUBAREA U05A5 L A SAN GABRIEL RIVER HYDRO UNIT U0500																	
4S/12W- 6J 2 S 11- 4-64	--	8.6	354	14 0.70	1 0.08	60 2.61	1 0.03	5 0.17	165 2.70	11 0.23	21 0.59	--	--	--	16	250	39
12- 1-64	--	8.6	357	13 0.65	1 0.08	67 2.91	1 0.03	7 0.23	160 2.62	4 0.08	28 0.79	--	--	--	20	248	37
12-29-64	--	8.6	367	13 0.65	1 0.08	66 2.87	2 0.05	6 0.20	166 2.72	1 0.02	26 0.73	--	--	--	19	201	37
2- 2-65	--	8.7	378	14 0.70	1 0.08	69 3.00	1 0.03	7 0.23	162 2.66	2 0.04	28 0.79	--	--	--	15	228	39
3- 2-65	--	8.7	373	13 0.65	1 0.08	70 3.04	2 0.05	7 0.23	165 2.70	2 0.04	27 0.76	--	--	--	19	270	37
3-30-65	--	8.9	400	12 0.60	1 0.08	80 3.48	1 0.03	16 0.53	163 2.67	2 0.04	25 0.71	--	--	--	19	208	34
4S/12W- 6K 2 S 5- 4-65	--	8.5	348	12 0.60	2 0.16	61 2.65	1 0.03	5 0.17	149 2.44	21 0.44	23 0.65	--	--	--	19	223	38
6- 1-65	--	8.5	353	14 0.70	2 0.16	60 2.61	2 0.05	5 0.17	151 2.47	4 0.08	20 0.56	--	--	--	19	230	43

TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million					
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Sulfur S
L A SAN GABRIEL RIVER HYDRO UNIT U0500															
COASTAL PL OF LA CO HYDR SUBUNIT U05A0															
CENTRAL HYDRO SUBAREA U05A5															
4S/12W-6K 2 S 6-29-65	--	8.6	376	14 0.70	3 0.25	61 2.65	0.03	1 0.17	5 2.51	11 0.23	19 0.54	--	--	--	48
7-27-65	--	8.5	2900	15 0.75	3 0.25	63 2.74	0.03	1 0.17	5 2.70	10 0.21	20 0.56	0	--	--	50
8-31-65	81	8.8	356	14 0.70	2 0.16	65 2.83	0.05	2 0.23	7 2.47	--	--	--	--	--	43
9-28-65	79	8.6	359	13 0.65	2 0.16	68 2.96	0.08	3 0.27	8 2.36	14 0.29	21 0.59	--	--	--	41
4S/12W-10A 2 S 10-30-64	--	7.8	392	50 2.50	7 0.58	23 1.00	0.08	3 0.27	0 3.64	13 0.27	10 0.28	1.0 0.02	0.5	0.07	154
4- 1-65	65	8.0	404	49 2.45	7 0.58	23 1.00	0.08	3 0.27	0 3.64	12 0.25	13 0.37	0.8 0.01	0.5	0.04	152
4S/12W-10G 1 S 10-30-64	--	7.9	420	45 2.25	6 0.49	35 1.52	0.08	3 0.27	0 3.43	18 0.37	19 0.54	0.0	0.2	0.02	137
4- 1-65	--	8.0	400	48 2.40	6 0.49	35 1.52	0.10	4 0.2	0 3.43	16 0.33	24 0.68	0	0.2	0.11	145
				53	11	34	2		77	7	15				236

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in						parts per million equivalents per percent				Mineral constituents in parts per million			
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	Total Evap 180°C Evap 105°C as CaCO <sub>3</sub>	
L A SAN GABRIEL RIVER HYDRO UNIT U0500																	
U05A5																	
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																	
CENTRAL HYDRO SUBAREA																	
4S/12W-12Q 1 S 6-16-65	--	7.7	435	62 3.09 64	8 0.66 14	23 1.00 21	3 0.08 2	0	259 4.25 89	13 0.27 6	9 0.25 5	0	0.5	0.05	--	215	188
4S/12W-13C 3 S 6-29-65	--	8.1	380	47 2.35	4 0.33	28 1.22	3 0.08	0	199 3.26	13 0.27	6 0.17	--	--	--	24	246	134
4S/12W-13D 3 S 7-27-65	--	8.0	2780	46 2.30	6 0.49	30 1.30	3 0.08	0	209 3.43	14 0.29	7 0.20	--	--	--	21	243	140
8-31-65	79	8.2	370	42 2.10	9 0.74	30 1.30	4 0.10	0	207 3.39	--	--	--	--	--	20	142	142
9-28-65	78	8.2	370	46 2.30	5 0.41	31 1.35	4 0.10	0	210 3.44	14 0.29	6 0.17	--	--	--	22	136	136
4S/12W-13N 2 S 5-4-65	--	8.9	384	23 1.15	2 0.16	56 2.43	2 0.05	8 0.27	155 2.54	22 0.46	17 0.48	--	--	--	21	245	66
6-29-65	--	8.4	409	23 1.15	3 0.25	58 2.52	2 0.05	2 0.07	168 2.75	17 0.35	12 0.34	--	--	--	20	254	70
7-27-65	--	8.4	2610	22 1.10	4 0.33	58 2.52	2 0.05	5 0.17	165 2.70	14 0.29	14 0.39	--	--	--	19	264	72

TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				Mineral constituents in parts per million					
				Calcium sum Ca	Magnesium sum Mg	Sodium Na	Potassium sum K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	SiO <sub>2</sub>	TDS as Evap 105°C Computed CaCO <sub>3</sub>	
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																	
CENTRAL HYDRO SUBAREA U05A5																	
L A SAN GABRIEL RIVER HYDRO UNIT U0500																	
4S/12W-13N 2 S 8-31-65	79	8.6	385	23 1.15	6 0.49	63 2.74	3 0.08	5 0.17	165 2.70	--	--	--	--	--	18	82	
4S/12W-13P 1 S 6- 9-65	--	8.3	398	46 2.30	6 0.49	33 1.43	2 0.05	0	198 3.25	30 0.62	13 0.37	5 0.08	--	--	--	140	
7-28-65	--	8.5	618	54 2.70	11 0.49	53 2.26	1 0.05	0	75 1.25	14 0.23	9 0.15	0	--	--	--	161	
4S/12W-14A 2 S 3- 2-65	--	7.9	380	47 2.35	5 0.41	25 1.09	3 0.08	0	194 3.18	25 0.52	8 0.23	--	--	--	23	138	
3-10-65	--	8.3	360	51 2.54	5 0.41	22 0.96	3 0.08	0	201 3.29	14 0.29	6 0.17	--	--	--	21	148	
5- 4-65	--	8.0	364	41 2.05	7 0.58	24 1.04	3 0.08	0	195 3.20	14 0.29	12 0.54	--	--	--	10	132	
6- 1-65	--	7.9	381	47 2.35	8 0.66	27 1.17	3 0.08	0	193 3.16	15 0.31	9 0.25	--	--	--	20	151	
6-29-65	--	8.0	420	48 2.40	6 0.49	25 1.09	3 0.08	0	196 3.21	16 0.33	8 0.23	--	--	--	21	145	

TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per percent					Mineral constituents in parts per million				
				Calcium	Magne-sium	Sodium	Potas-sium	Carbon-ate	Bicar-bonate	Sulfate	Chlor-ide	Ni-trate	Fluo-ride	Boron	Silica	Iron	Total hardness as CaCO <sub>3</sub>	
Date sampled				Ca	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>	Fe	as CaCO <sub>3</sub>	
L A SAN GABRIEL RIVER HYDRO UNIT U0500																		
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																		
CENTRAL HYDRO SUBAREA U05A5																		
4S/12W-14C 2 S 5- 4-65	--	8.9	330	8 0.40	1 0.08	66 2.87	1 0.03	1 0.57	129 2.11	1 0.02	24 0.68	--	--	--	10	252	24	
6- 1-65	--	8.8	319	7 0.35	0	64 2.78	1 0.03	1 0.40	130 2.13	0	20 0.56	--	--	--	18	218	18	
6-29-65	--	8.9	320	6 0.30	1 0.08	62 2.70	1 0.03	8 0.27	139 2.28	5 0.10	19 0.54	--	--	--	19	219	19	
7-27-65	--	9.0	3200	7 0.35	2 0.16	68 2.96	1 0.03	13 0.43	134 2.20	15 0.31	20 0.56	--	--	--	18	234	26	
8-31-65	79	8.9	327	6 0.30	1 0.08	69 3.00	2 0.05	12 0.40	135 2.21	--	--	--	--	--	17	19	19	
9-28-65	79	9.0	325	3 0.15	1 0.08	72 3.13	2 0.05	14 0.47	132 2.16	8 0.17	20 0.56	--	--	--	18	12	12	
4S/12W-14C 5 S 11- 4-64	--	8.3	288	22 1.10	3 0.25	37 1.61	2 0.05	0	148 2.43	17 0.35	7 0.20	--	--	--	16	205	68	
12- 1-64	--	8.2	295	34 1.70	4 0.33	34 1.48	2 0.05	0	162 2.66	14 0.29	11 0.31	--	--	--	20	224	102	



TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fuo- ride F	Baron B	Sul- fo- S-O <sub>2</sub>	Total Exad-100°C Hardness as CaCO <sub>3</sub>	
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																	
CENTRAL HYDRO SUBAREA U05A5																	
4S/12W-14C 5 S 12-29-64	--	8.1	320	32 1.60	4 0.33	32 1.39	3 0.08	0	168 2.75	8 0.17	7 0.20	--	--	--	21	187	97
	--	8.2	327	36 1.80	3 0.25	31 1.35	2 0.05	0	168 2.75	4 0.08	7	--	--	--	16	190	103
3- 2-65	--	8.1	327	33 1.65	4 0.33	31 1.35	3 0.08	0	168 2.75	13 0.27	7 0.20	--	--	--	21	223	99
	--	8.4	313	34 1.70	4 0.33	36 1.57	3 0.08	3 0.10	167 2.74	10 0.21	5 0.14	--	--	--	20	177	102
4S/12W-16R 1 S 11- 4-64	--	8.4	288	21 1.05	2 0.16	38 1.65	2 0.05	2 0.07	154 2.52	13 0.27	8 0.23	--	--	--	16	242	61
	--	8.4	285	23 1.15	2 0.16	45 1.96	2 0.05	4 0.13	148 2.43	4 0.08	13 0.37	--	--	--	19	214	66
3- 2-65	--	8.4	308	18 0.90	2 0.16	44 1.91	2 0.05	5 0.17	145 2.38	13 0.27	11 0.31	--	--	--	20	220	53
	--	8.8	313	20 1.00	3 0.25	41 1.78	2 0.05	8 0.27	145 2.38	6 0.12	10 0.28	--	--	--	18	172	63

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	TDS Evap 180°C Computed	Total hardness as CaCO <sub>3</sub>	
L A SAN GABRIEL RIVER HYDRO UNIT U0500																		
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																		
CENTRAL HYDRO SUBAREA U05A5																		
4S/12W-17E 1 S 6-29-65	--	8.7	356	10 0.50	1 0.08	66 2.87	1 0.03	6 0.20	171 2.80	5 0.10	20 0.56	--	--	--	18	250	29	
7-27-65	--	8.7	2750	10 0.50	2 0.16	72 3.13	1 0.03	10 0.33	170 2.79	5 0.10	23 0.65	--	--	--	18	259	33	
8-31-65	81	8.8	365	10 0.50	0	78 3.39	2 0.05	8 0.27	175 2.87	--	--	--	--	--	16		25	
4S/12W-17P 3 S 5-4-65	--	--	325	12 0.60	1 0.08	62 2.70	1 0.03	8 0.27	138 2.26	6 0.12	24 0.68	--	--	--	18	202	34	
6-1-65	--	8.5	327	12 0.60	1 0.08	57 2.48	1 0.03	7 0.23	145 2.38	0	24 0.68	--	--	--	17	206	34	
4S/12W-19A 1 S 1-5-65	--	8.4	718	34 1.70	6 0.49	107 4.65	1 0.03	0	162 2.66	12 0.25	139 3.92	0	--	--	--	379	110	
4S/12W-19B 4 S 1-5-65	--	8.4	733	33 1.65	6 0.49	110 4.78	1 0.03	0	164 2.69	10 0.21	144 4.06	0	--	--	--	385	107	
4S/12W-20J 4 S 11-4-64	--	8.8	369	8 0.40	1 0.08	75 3.26	1 0.03	7 0.23	192 3.15	10 0.21	18 0.51	--	--	--	16	305	24	

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million							
				Calcium Ca	Magne- sium Mg	Sodium Na	Potash K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlor- ide Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sulf- co SO <sub>2</sub>	T.D.S. Evap 180°C as Computed CaCO <sub>3</sub>	Total Hardness as CaCO <sub>3</sub>
COASTAL PL OF LA CO HYDR SUBUNIT U05A0 CENTRAL HYDRO SUBAREA U05A5 L A SAN GABRIEL RIVER HYDRO UNIT U0500																	
4S/12W-20J 4 S 12- 1-64	--	8.6	375	9 0.45	1 0.08	78 3.39	1 0.03	6 0.20	193 3.16	4 0.08	22 0.62	--	--	--	18	282	27
12-29-64	--	8.6	397	9 0.45	2 0.16	79 3.43	2 0.05	7 0.23	199 3.26	4 0.08	18 0.51	--	--	--	18	229	31
2- 2-65	--	8.7	371	8 0.40	2 0.16	71 3.09	1 0.03	8 0.27	164 2.69	4 0.08	20 0.56	--	--	--	14	232	28
3- 2-65	--	8.7	367	9 0.45	1 0.08	73 3.17	2 0.05	8 0.27	179 2.93	3 0.06	18 0.51	--	--	--	19	268	27
3-30-65	--	8.9	374	9 0.45	1 0.08	72 3.13	1 0.03	14 0.47	150 2.46	8 0.17	17 0.48	--	--	--	17	196	27
5- 4-65	--	8.6	382	9 0.45	0	72 3.13	1 0.03	7 0.23	187 3.06	7 0.15	20 0.56	--	--	--	11	252	23
6- 1-65	--	8.8	381	8 0.40	1 0.08	80 3.48	1 0.03	10 0.33	179 2.93	2 0.04	24 0.68	--	--	--	17	270	24
6-29-65	--	8.6	393	8 0.40	1 0.08	71 3.09	1 0.03	5 0.17	194 3.18	1 0.02	18 0.51	--	--	--	18	270	24

TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (microhmhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent reactance value					Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	TDS Evap 180°C Evap 105°C as Computed CaCO <sub>3</sub>		
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																		
CENTRAL HYDRO SUBAREA U05A5																		
4S/12W-20J 4 S 8-31-65	81	8.8	394	8 0.40	3 0.25	72 3.13	2 0.05	10 0.33	211 3.46	--	--	--	--	--	16	33		
9-28-65	79	8.7	398	8 0.40	1 0.08	90 3.91	3 0.08	11 0.37	194 3.18	12 0.25	19 0.54	--	--	--	18	24		
4S/12W-23K 3 S 3- 2-65	--	8.6	353	11 0.55	1 0.08	64 2.78	2 0.05	5 0.17	143 2.34	3 0.06	12 0.34	--	--	--	17	32		
3-30-65	--	9.0	357	12 0.60	1 0.08	58 2.52	2 0.05	15 0.50	131 2.15	23 0.48	11 0.31	--	--	--	17	34		
5- 4-65	--	8.6	352	11 0.55	0	58 2.52	1 0.03	6 0.20	141 2.31	21 0.44	18 0.51	--	--	--	16	28		
6-29-65	--	8.6	334	10 0.50	1 0.08	63 2.74	1 0.03	5 0.17	143 2.34	20 0.42	12 0.34	--	--	--	17	29		
4S/12W-24M 8 S 7-27-65	--	8.5	2800	22 1.10	5 0.41	58 2.52	2 0.05	4 0.13	167 2.74	25 0.52	13 0.37	--	--	--	18	76		
8-31-65	81	8.6	380	23 1.15	5 0.41	58 2.52	3 0.08	5 0.17	163 2.67	--	--	--	--	--	17	78		

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fuor- ide F	Boron B	Sul- co SiO <sub>2</sub>	T.O.S. Evap Residue Evap 105°C Computed CaCO <sub>3</sub>	Total hardness as CaCO <sub>3</sub>	
COASTAL PL OF LA CO HYDR SUBUNIT U05A0 CENTRAL HYDRO SUBAREA U05A5 L A SAN GABRIEL RIVER HYDRO UNIT U0500																		
4S/12W-24Q 1 S 7-28-65	--	8.5	421	48 2.40 52	0	50 2.17 47	2 0.05 1	0	198 3.25 71	38 0.79 17	20 0.56 12	0	--	--	--	120		
4S/12W-26F 2 S 11- 2-64	--	8.6	377	9 0.45 11	1 0.08 2	85 3.70 87	1 0.03 1	0	158 2.59 59	35 0.73 17	38 1.07 24	0.0	--	--	--	27		
3- 3-65	--	8.8	374	12 0.60	2 0.16	69 3.00	2 0.05	6 0.20	153 2.51	14 0.29	13 0.37	--	--	--	15	38		
4S/12W-28H 1 S 10-27-64	--	7.5	340	3 0.15 4	1 0.08 2	82 3.57 93	1 0.03 1	0	191 3.13 81	10 0.21 5	18 0.51 13	0.0	0.6	0.27	--	12		
4S/12W-28H12 S 11- 4-64	--	8.9	334	6 0.30	1 0.08	67 2.91	1 0.03	11 0.37	170 2.79	10 0.21	14 0.39	--	--	--	15	19		
12- 1-64	--	8.9	332	6 0.30	1 0.08	73 3.17	1 0.03	12 0.40	167 2.74	10 0.21	17 0.48	--	--	--	18	19		
12-29-64	--	8.9	348	6 0.30	1 0.08	73 3.17	1 0.03	12 0.40	168 2.75	4 0.08	16 0.45	--	--	--	18	19		
2- 2-65	--	9.0	363	6 0.30	0	65 2.83	1 0.03	14 0.47	166 2.72	2 0.04	19 0.54	--	--	--	14	15		



TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	T.D.S. Evap 180°C Evap 105°C Computed	Total hardness as CaCO <sub>3</sub>	
L A SAN GABRIEL RIVER HYDRO UNIT U0500																		
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																		
CENTRAL HYDRO SUBAREA U05A5																		
4S/12W-28H12 S 3- 2-65	--	8.9	360	5 0.25	1 0.08	76 3.30	1 0.03	13 0.43	167 2.74	11 0.23	15 0.42	--	--	--	19	260	17	
3-30-65	--	8.9	357	5 0.25	1 0.08	70 3.04	1 0.03	12 0.40	176 2.88	4 0.08	15 0.42	--	--	--	17	201	17	
5- 4-65	--	8.8	362	5 0.25	1 0.08	72 3.13	1 0.03	10 0.33	173 2.84	7 0.15	22 0.62	--	--	--	13	236	17	
6- 1-65	--	8.9	361	5 0.25	0	75 3.26	1 0.03	14 0.47	162 2.66	2 0.04	20 0.56	--	--	--	17	237	13	
6-29-65	--	8.9	345	6 0.30	1 0.08	72 3.13	1 0.03	10 0.33	179 2.93	2 0.04	15 0.42	--	--	--	18	266	19	
7-27-65	--	8.9	2800	6 0.30	1 0.08	75 3.26	1 0.03	16 0.53	170 2.79	6 0.12	17 0.48	--	--	--	17	255	19	
8-31-65	81	8.9	370	6 0.30	0	72 3.13	2 0.05	13 0.43	176 2.88	--	--	--	--	--	16	--	15	
9-28-65	79	9.0	370	5 0.25	1 0.08	84 3.65	2 0.05	17 0.57	168 2.75	12 0.25	16 0.45	--	--	--	18	--	17	

TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million reactivity value				Mineral constituents in parts per million				
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Flu- oride F	Boron B	Sili- ca SiO <sub>2</sub>	Total Dissolved Solids TDS
4S/12W-35C 1 S 11- 4-64	--	8.5	379	22 1.10 25	3 0.25 6	68 2.96 68	2 0.05 1	0	167 2.74 59	34 0.71 15	42 1.18 25	0.0	--	--	--	68
3- 3-65	--	8.6	373	23 1.15	4 0.33	53 2.30	2 0.05	4 0.13	167 2.74	21 0.44	13 0.37	--	--	--	18	74
4S/12W-35C 2 S 3- 3-65	--	8.6	300	17 0.85	5 0.41	41 1.78	3 0.08	4 0.13	150 2.46	5 0.10	10 0.28	--	--	--	7	63
4S/12W-35H 1 S 10- 7-64	--	8.6	351	11 0.55 16	1 0.08 2	66 2.87 81	1 0.03 1	0	155 2.54 72	26 0.54 15	16 0.45 13	0.0	--	--	--	32
4S/12W-35H 5 S 11- 2-64	--	8.6	399	9 0.45 10	3 0.25 6	86 3.74 84	1 0.03 1	0	160 2.62 57	37 0.77 17	44 1.24 27	0	--	--	--	35
4S/12W-35J 5 S 1-11-65	72	8.2	18200	752 37.52 19	368 20.26 15	3040 132.18 66	16 0.41	0	162 2.66 1	1040 21.65 11	6280 177.10 88	0	--	--	--	3392
4S/12W-35J 6 S 1- 8-65	75	8.1	24200	1600 79.84 33	291 23.93 10	3100 134.79 56	8 0.20	0	121 1.98 1	1080 22.49 9	7560 213.19 90	0	--	--	--	5193
4S/12W-35J 7 S 1- 4-65	73	8.0	10200	562 28.04 26	180 14.80 14	1470 63.92 60	11 0.28	0	120 1.97 2	486 10.12 9	3360 96.75 89	0	--	--	--	2144
																6128

COASTAL PL OF LA CO HYDR SUBUNIT U05A0  
CENTRAL HYDRO SUBAREA U05A5  
L A SAN GABRIEL RIVER HYDRO UNIT U0500

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					Mineral constituents in parts per million									
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- co SiO <sub>2</sub>	TDS Evap (80°C) Hardness as CaCO <sub>3</sub>		
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																		
CENTRAL HYDRO SUBAREA U05A5																		
4S/12W-35J 7 S 4-15-65	--	8.0	11000	684 34.13 29	138 11.35 10	1660 72.18 61	10 0.26	0	106 1.74 1	580 12.08 10	3740 105.47 88	0	--	--	--	2276		
6-29-65	75	7.7	13000	793 39.57 29	173 14.23 10	1910 83.05 60	18 0.46	0	130 2.13 2	708 14.74 10	4380 123.52 88	0	--	--	--	2692		
4S/12W-35K 3 S 6- 7-65	--	8.0	30700	867 43.26 11	756 62.17 16	6500 282.62 73	2 0.05	0	206 3.38 1	1950 40.60 10	12300 346.86 89	0	--	--	--	5276		
4S/12W-35K 6 S 1-19-65	--	8.2	2210	221 11.03 55	35 2.88 14	138 6.00 30	10 0.26 1	0	131 2.15 11	110 2.29 11	558 15.74 78	0	--	--	--	696		
7- 1-65	--	8.1	1930	202 10.08 54	25 2.06 11	147 6.39 34	6 0.15 1	0	147 2.41 13	126 2.62 14	484 13.65 73	0	--	--	--	607		
4S/12W-35K 7 S 1-18-65	76	8.6	926	57 2.84 33	5 0.41 5	124 5.39 62	2 0.05 1	0	134 2.20 25	47 0.98 11	198 5.58 64	0	--	--	--	163		
7- 1-65	--	8.1	2140	207 10.33 51	13 1.07 5	200 8.70 43	3 0.08	0	119 1.95 10	103 2.14 11	572 16.13 80	0	--	--	--	570		
4S/12W-35P 1 S 10-11-64	--	9.5	1160	13 0.65 5	4 0.33 3	253 11.00 91	5 0.13 1	0	286 4.69 39	225 4.68 39	95 2.68 22	0	--	--	--	49		
																736		

TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				Mineral constituents in parts per million					
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	Total Evap 180°C hardness as CaCO <sub>3</sub>	
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																	
CENTRAL HYDRO SUBAREA U05A5																	
4S/12W-35P 1 S 12-31-64	72	11.4	1120	48 2.40 29	6 0.49 6	118 5.13 63	6 0.15 2	0	171 2.80 34	167 3.48 43	67 1.89 23	0	--	--	--	496	145
4-28-65	73	8.3	661	20 1.00 17	6 0.49 8	102 4.43 73	5 0.13 2	0	40 0.66 11	137 2.85 48	88 2.48 41	0	--	--	--	378	75
4S/12W-35P 2 S 10-10-64	--	8.3	787	45 2.25 28	5 0.41 5	120 5.22 66	2 0.05 1	0	148 2.43 31	226 4.71 59	28 0.79 10	0	--	--	--	499	133
12-30-64	72	8.4	784	40 2.00 25	6 0.49 6	128 5.37 69	1 0.03	0	138 2.26 28	246 5.12 64	22 0.62 8	0	--	--	--	511	125
4-29-65	73	8.3	778	39 1.95 25	4 0.33 4	128 5.37 71	1 0.03	0	138 2.26 29	242 5.04 65	18 0.51 7	0	--	--	--	500	114
4S/12W-35R 3 S 4-14-65	--	7.9	40000	572 28.54 6	1020 83.88 16	9000 391.32 77	188 4.81 1	0	180 2.95 1	2300 47.89 9	16400 462.48 90	0	--	--	--	5625	5625
6- 8-65	--	7.9	37900	565 28.19 6	1025 84.30 17	8800 382.62 76	204 5.22 1	0	181 2.97 1	2300 47.89 10	16000 451.20 90	0	--	--	--	29569	5629
4S/12W-35R 5 S 6- 7-65	--	7.9	37600	1360 67.86 14	973 80.02 16	7840 340.88 69	200 5.11 1	0	204 3.34 1	2300 47.89 10	16000 451.20 90	0	--	--	--	28983	7400
																28773	

TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					Mineral constituents in parts per million									
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	I.O.S. Exp 180°C Exp 105°C Computed	Total hardness as CaCO <sub>3</sub>	
L A SAN GABRIEL RIVER HYDRO UNIT U0500																		
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																		
CENTRAL HYDRO SUBAREA U05A5																		
4S/12W-35R 6 S 6- 7-65	--	8.3	575	57 2.84 47	7 0.58 10	58 2.52 42	2 0.05 1	0	190 3.11 51	104 2.17 36	25 0.71 12	5 0.08 1	--	--	--	351	171	
4S/12W-35R10 S 4-15-65	--	8.4	42000	540 26.95 5	1080 88.82 16	9800 426.10 78	252 6.44 1	0	252 4.13 1	2430 50.59 9	17400 490.68 90	0	--	--	--	31626	5793	
4S/12W-35R12 S 4-15-65	--	8.3	45500	458 22.85 4	1220 100.33 17	10500 456.54 78	285 7.29 1	0	198 3.25 1	2690 56.01 10	18800 530.16 90	0	--	--	--	34050	6164	
4S/12W-35R13 S 4-15-65	--	7.8	2450	278 13.87 59	45 3.70 16	138 6.00 25	5 0.13 1	0	128 2.10 9	181 3.77 16	618 17.43 75	0	--	--	--	1328	879	
4S/12W-35R17 S 1-14-65	73	8.8	11700	486 24.25 20	220 18.09 15	1770 76.96 64	20 0.51	0	180 2.95 2	514 10.70 9	3790 106.88 89	0	--	--	--	6980	2119	
4-20-65	--	8.3	12500	598 29.84 23	219 18.01 14	1910 83.05 63	30 0.77 1	0	169 2.77 2	552 11.49 9	4160 117.31 89	0	--	--	--	7640	2394	
4S/12W-35R18 S 10- 1-64	--	8.1	41700	688 34.33 7	1020 83.88 16	9000 391.32 76	185 4.73 1	0	254 4.16 1	2144 44.64 9	16400 462.48 90	0	--	--	--	7552	5915	
1-13-65	72	8.0	48500	673 33.58 6	1100 90.46 17	9200 400.02 76	185 4.73 1	0	233 3.82 1	2400 49.97 9	16900 476.58 90	0	--	--	--	30700	6207	
																30573		



TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million reactance value					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlor- ide Cl	Ni- trate NO <sub>3</sub>	Flu- oride F	Baron B	Sul- fo- S O <sub>2</sub>	TD- S Evap. Residue at 100°C Compared to CaCl <sub>2</sub>	Total Hardness as CaCO <sub>3</sub>	
L A SAN GABRIEL RIVER HYDRO UNIT U0500																		
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																		
CENTRAL HYDRO SUBAREA U05A5																		
4S/12W-35R18 S 4-21-65	--	8.0	42400	673 33.58 6	1090 89.64 17	9200 400.02 76	245 6.26 1	0	251 4.11 1	2430 50.59 10	16900 476.58 90	0	--	--	--	30800 30661	6166	
4S/12W-35R19 S 1-12-65	74	8.0	20800	742 37.03 16	445 36.60 16	3640 158.27 68	8 0.20	0	137 2.25 1	1060 22.07 10	7370 207.83 90	0	--	--	--	13400 13332	3684	
4-16-65	74	8.2	23400	852 42.51 16	487 40.05 15	4300 186.96 69	16 0.41	0	136 2.23 1	1230 25.61 9	8700 245.34 90	0	--	--	--	15700 15652	4131	
4S/12W-36C 1 S 3- 4-65	--	8.2	1020	67 3.34	24 1.97	75 3.26	5 0.13	0	276 4.52	160 3.33	107 3.02	--	--	--	11	545	266	
4S/12W-36E 1 S 5-19-65	--	8.3	1070	101 5.04 50	14 1.15 11	90 3.91 38	3 0.08	0	164 2.69 27	54 1.12 11	222 6.26 62	0	--	--	--	565	310	
4S/12W-36E 2 S 5-19-65	--	8.2	592	56 2.79 46	11 0.90 15	53 2.30 38	2 0.05	0	210 3.44 57	56 1.17 19	50 1.41 23	0	--	--	--	331	185	
4S/12W-36M 1 S 10- 1-64	--	8.4	373	17 0.85 22	2 0.16 4	64 2.78 73	1 0.03	0	162 2.66 69	36 0.75 19	16 0.45 12	0.0	--	--	--	51	216	
5-19-65	--	8.3	371	15 0.75 20	3 0.25 7	62 2.70 72	1 0.03	0	161 2.64 71	33 0.69 19	13 0.37 10	0	--	--	--	206	50	

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in								parts per million equivalents per percent			Mineral constituents in parts per million				
				Calcium Co	Magne-sium Mg	Sodium Na	Potas-sium K	Carbon-ate CO <sub>3</sub>	Bicar-bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo-ride Cl	Ni-trate NO <sub>3</sub>	Fluo-ride F	Boron B	Sili-co SiO <sub>2</sub>	Total hardness as CaCO <sub>3</sub>			
L A SAN GABRIEL RIVER HYDRO UNIT U0500																			
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																			
CENTRAL HYDRO SUBAREA U05A5																			
4S/12W-36M 2 S 5-19-65	--	7.8	35300	1140 56.89 13	820 67.44 15	7160 311.32 71	40 1.02	0	165 2.70 1	1960 40.81 9	13900 391.98 90	0	--	--	--	25101	6221		
4S/12W-36N 2 S 4-23-65	--	8.0	40000	570 28.44 6	1040 85.53 17	8720 379.15 76	255 6.52 1	0	182 2.98 1	2280 47.47 10	15900 448.38 90	0	--	--	--	28854	5703		
6- 4-65	--	8.0	39700	578 28.84 6	1020 83.88 17	8600 373.93 76	260 6.65 1	0	184 3.02 1	2270 47.26 9	16000 451.20 90	0	--	--	--	28818	5641		
4S/12W-36N 3 S 4-23-65	--	7.9	45900	432 21.56 4	1240 101.98 17	10400 452.19 77	333 8.51 1	0	217 3.56 1	2630 54.76 9	18600 524.52 90	0	--	--	--	33742	6182		
6- 4-65	--	8.0	45000	456 22.75 4	1230 101.16 18	10200 443.50 77	320 8.18 1	0	221 3.62 1	2600 54.13 9	18500 521.70 90	0	--	--	--	33415	6200		
4S/12W-36N 4 S 4-23-65	--	8.2	467	45 2.25 47	6 0.49 10	46 2.00 42	2 0.05 1	0	198 3.25 69	37 0.77 16	24 0.68 14	0	--	--	--	257	137		
6- 4-65	--	8.4	414	42 2.10 45	6 0.49 10	46 2.00 43	3 0.08 2	0	200 3.28 70	37 0.77 16	22 0.62 13	0	--	--	--	254	130		
4S/12W-36P 1 S 5-13-65	71	8.4	419	33 1.65 38	6 0.49 11	50 2.17 49	3 0.08 2	0	178 2.92 67	37 0.77 18	23 0.65 15	0	--	--	--	240	107		

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents percent				per million				Mineral constituents in parts per million			
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Nit- rate NO <sub>3</sub>	Fluo- ride F	Baron B	Silic- ic SiO <sub>2</sub>	Total Dissolved Solids Equiv 105°C CoCCs			
L A SAN GABRIEL RIVER HYDRO UNIT U0500																			
COASTAL PL OF LA CO HYDR SUBUNIT U05A0				U05A5															
CENTRAL HYDRO SUBAREA																			
4S/12W-36P 2 S 5-12-65	73	9.6	352	3 0.15 4	1 0.08 2	70 3.04 90	4 0.10 3	38 1.27 38	48 0.79 23	36 0.75 22	20 0.56 17	0	--	--	--	196			12
4S/12W-36P 3 S 5-20-65	72	8.4	410	22 1.10 26	6 0.49 12	58 2.52 60	3 0.08 2	0	155 2.54 61	43 0.90 22	26 0.73 18	0	--	--	--	234			80
4S/12W-36P 4 S 5-19-65	73	8.6	477	36 1.80 38	7 0.58 12	53 2.30 49	2 0.05 1	0	182 2.98 63	42 0.87 19	30 0.85 18	0	--	--	--	259			119
4S/12W-36P 5 S 5-17-65	73	7.7	13900	958 47.80 32	277 22.78 15	1820 79.13 53	18 0.46	0	136 2.23 1	671 133.95 9	4750 133.95 89	0	--	--	--	8561			3532
4S/12W-36P 6 S 5-14-65	73	8.4	422	18 0.90 21	3 0.25 6	70 3.04 72	2 0.05 1	0	163 2.67 64	37 0.77 18	27 0.76 18	0	--	--	--	237			58
4S/14W-8E 6 S 5-19-64	--	8.0	1160	82 4.09 36	27 2.22 19	116 5.04 44	5 0.13 1	0	144 2.36 20	299 6.23 52	124 3.50 29	0	--	--	--	724			316
4S/14W-8E 7 S 10-26-63	--	7.2	37300	640 31.94 7	1074 88.33 19	7825 340.23 73	156 3.99	0	158 2.59 1	2239 46.62 10	14500 408.90 89	0	--	--	--	6018			
7-26-65	--	8.0	1270	102 5.09 38	34 2.80 21	124 5.39 40	6 0.15 1	0	160 2.62 19	372 7.75 57	118 3.33 24	0	--	--	--	26512			395

TABLE E-1

COASTAL PL OF LA CO HYDR SUBUNIT U05A0  
CENTRAL HYDRO SUBAREA



ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent reactance value				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	Total I.O.S. Evap 100°C Evap 105°C Computed Calc CO <sub>3</sub>	
L A SAN GABRIEL RIVER HYDRO UNIT U0500																	
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																	
CENTRAL HYDRO SUBAREA U05A5																	
5S/12W- 2A 9 S 12-10-64	70	8.9	389	28 1.40 34	5 0.41 10	50 2.17 53	3 0.08 2	0	170 2.79 69	40 0.83 20	16 0.45 11	0	--	--	--	312 226	91
5S/12W- 2A10 S 10- 8-64	--	8.4	459	34 1.70 37	6 0.49 11	55 2.39 52	2 0.05 1	0	184 3.02 66	43 0.90 20	22 0.62 14	1 0.02	--	--	--	347 253	110
12- 9-64	72	8.8	418	32 1.60 37	4 0.33 8	53 2.30 53	3 0.08 2	0	177 2.90 67	43 0.90 21	18 0.51 12	0	--	--	--	329 240	97
4-23-65	72	8.4	424	30 1.50 29	5 0.41 8	76 3.30 63	2 0.05 1	0	180 2.95 55	50 1.04 19	48 1.35 25	0	--	--	--	392 300	96
5S/12W- 2A11 S 10- 9-64	--	7.8	13600	1020 50.90 35	218 17.93 12	1740 75.66 52	15 0.38 2	0	134 2.20 2	623 12.97 9	4590 129.44 90	0	--	--	--	8340 8272	3444
12- 3-64	73	8.0	11700	963 48.65 38	203 16.69 13	1440 62.61 49	20 0.51 2	0	146 2.39 2	572 11.91 9	4020 113.35 89	0	--	--	--	1370 7290	3240
4-26-65	73	7.9	14800	1120 55.89 35	254 20.89 13	1910 83.05 52	20 0.51 1	0	146 2.39 1	712 14.82 9	5100 143.82 89	0	--	--	--	9270 9188	3842
5S/12W- 2A12 S 10- 8-64	--	8.2	524	22 1.10 22	3 0.25 5	83 3.61 72	2 0.05 1	0	179 2.93 58	44 0.92 18	42 1.16 23	0	--	--	--	375 284	68



TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					Mineral constituents in parts per million									
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	Total D.S. Evap 180°C Evap 105°C as CaCO <sub>3</sub>		
COASTAL PL OF LA CO HYDR SUBUNIT U05A0 CENTRAL HYDRO SUBAREA U05A5 L A SAN GABRIEL RIVER HYDRO UNIT U0500																		
5S/12W- 2A12 S 12- 7-64	73	8.8	376	13 0.65	2 0.16	2.96 77	0.05	2	0	163 2.67	37 0.77	16 0.45	--	--	--	302 218	41	
4-22-65	--	8.3	379	14 0.70	2 0.16	3.09 78	0.03	1	0	157 2.57	40 0.83	21 0.59	--	--	--	306 226	43	
5S/12W- 2A13 S 12-18-64	70	8.8	430	31 1.55	4 0.33	55 2.39	2	0	0	181 2.97	42 0.87	18 0.51	--	--	--	333 241	94	
5S/12W- 2A14 S 12-17-64	71	8.2	25900	746 37.23	565 46.47	4800 208.70	63 1.61	0	0	179 2.93	1390 28.94	9370 264.23	8.0 0.13	--	--	17100 17030	4188	
5S/12W- 2A16 S 12-15-64	73	8.6	1060	75 3.74	9 0.74	120 5.22	2 0.05	0	0	141 2.31	56 1.17	225 6.35	--	--	--	628 556	224	
5S/12W- 2B 8 S 10- 8-64	--	8.7	312	7 0.35	1 0.08	62 2.70	1 0.03	0	0	161 2.64	2 0.04	16 0.45	--	--	--	22 168	22	
5S/12W- 2B 9 S 4-20-65	--	8.2	7020	68 3.39	112 9.21	1270 55.22	48 1.23	0	0	137 2.25	293 6.10	2140 60.35	0	--	--	3998	631	
5-13-65	--	8.3	4760	52 2.59	88 7.24	800 34.78	38 0.97	0	0	130 2.13	170 3.54	1420 40.04	0	--	--	2632	492	

# ANALYSES OF GROUND WATER LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					Mineral constituents in parts per million									
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	Total dissolved solids Computed CaCO <sub>3</sub>		
COASTAL PL OF LA CO HYDR SUBUNIT U05A0 CENTRAL HYDRO SUBAREA U05A5 L A SAN GABRIEL RIVER HYDRO UNIT U0500																		
5S/12W- 2B12 S 4-20-65	--	8.0	42700	464 23.15	1130 92.93	9400 408.71	328 8.39	0	175 2.87	2510 52.26	16900 476.58	0	--	--	--	5809 30818		
5-18-65	--	7.9	40300	462 23.05	1060 87.17	9000 391.32	296 7.57	0	184 3.02	2390 49.76	16100 454.02	0	--	--	--	5515 29398		
5S/12W- 2B16 S 12-14-64	69	8.5	10500	260 12.97	228 18.75	1725 75.00	41 1.05	0	147 2.41	490 10.20	3380 95.32	2.5 0.04	--	--	--	1587 6199		
5S/12W- 2C 7 S 12-21-64	--	8.3	4170	348 17.37	56 4.61	496 21.57	5 0.13	0	156 2.56	693 14.43	952 26.85	3.2 0.05	--	--	--	1100 2630		
5S/12W- 2C 8 S 10-13-64	--	7.3	7940	716 35.73	65 5.35	910 39.57	8 0.20	0	68 1.11	369 7.68	2510 70.78	1.0 0.02	--	--	--	2056 4612		
5S/12W- 2C 9 S 10-31-64	--	7.3	7940	716 35.73	65 5.35	910 39.57	8 0.20	0	68 1.11	369 7.68	2510 70.78	1.0 0.02	--	--	--	2056 4612		
12-29-64	72	8.3	4720	419 20.91	42 3.45	515 22.39	5 0.13	0	111 1.82	428 8.91	1280 36.10	0	--	--	--	1219 2744		
5S/12W- 2D 4 S 12-28-64	--	8.0	45900	564 28.14	1220 100.33	10250 445.67	270 6.90	0	228 3.74	2700 56.21	18500 521.70	0	--	--	--	6429 33616		

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million reactance value					Mineral constituents in parts per million				
				Calcium Co	Magne-sium Mg	Sodium Na	Potas-sium K	Carbon-ate CO <sub>3</sub>	Bicar-bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo-ride Cl	Ni-trate NO <sub>3</sub>	F flu-ride F	Boron B	Sili-co SiO <sub>2</sub>	Total hardness as CaCO <sub>3</sub>		
L A SAN GABRIEL RIVER HYDRO UNIT U0500																		
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																		
CENTRAL HYDRO SUBAREA U05A5																		
5S/12W- 2D 5 S 12-23-64	70	8.4	22900	702 35.03 13	462 37.99 15	4275 185.88 71	63 1.61 1	0	193 3.16 1	1400 29.15 11	8040 226.73 87	8.0 0.13	--	--	--	15045	3654	
5S/12W- 2D 6 S 12-22-64	71	8.5	6460	160 7.98 13	112 9.21 15	1050 45.65 72	19 0.49 1	0	138 2.26 4	291 6.06 10	1960 55.27 87	1.3 0.02	--	--	--	3661	860	
5S/12W- 2F11 S 4-20-65	--	8.1	33300	664 33.13 8	824 67.77 17	6840 297.40 74	41 1.05	0	374 6.13 2	1740 36.23 9	12700 358.14 89	0	--	--	--	22993	5049	
5-16-65	--	8.0	32900	678 33.83 9	805 66.20 17	6830 296.97 75	25 0.64	0	375 6.15 2	1730 36.02 9	12600 355.32 89	0	--	--	--	22852	5006	
5S/12W- 2F12 S 4-20-65	--	7.8	45900	704 35.13 6	1200 98.69 17	10200 443.50 76	238 6.09 1	0	201 3.29 1	2600 54.13 9	18600 524.52 90	0	--	--	--	33641	6696	
5-16-65	--	7.6	45000	674 33.63 6	1200 98.69 17	10200 443.50 76	228 5.83 1	0	198 3.25 1	2650 55.17 9	18600 524.52 90	0	--	--	--	33649	6621	
5S/12W- 2F13 S 5-28-65	--	7.9	36000	564 28.14 6	1040 85.53 18	8450 367.41 75	263 6.72 1	0	186 3.05 1	2400 49.97 10	15400 434.28 89	0	--	--	--	28208	5688	
5S/12W- 2G 5 S 7-27-65	--	8.3	44600	528 26.35 5	1160 95.40 17	9800 426.10 77	332 8.49 2	0	238 3.90 1	2548 53.05 9	17800 501.96 90	0	--	--	--	32285	6092	

# TABLE I ANALYSES OF GROUND WATER LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in							parts per million equivalents per percent		Mineral constituents in parts per million						
				Calcium	Magne- sium	Sodium	Potas- sium	Carbon- ate	Bicar- bonate	Sulfate	Chlo- ride	Ni- trate	Flu- ride	Boron	Sili- ca	Total dissolved solids			
Date sampled				Co	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>	Compd			
L A SAN GABRIEL RIVER HYDRO UNIT U0500																			
COASTAL PL OF LA CO HYDR SUBUNIT U0500																			
CENTRAL HYDRO SUBAREA U05A5																			
55/12W- 2G19 S 6- 1-65	--	8.1	45400	446 22.26 4	1230 101.16 18	10200 443.50 77	372 9.51 2	0	188 3.08 1	2630 54.76 9	18500 521.70 90	0	--	--	--	6176 33470			
55/12W- 2G20 S 5-24-65	--	7.7	40300	628 31.34 6	1120 92.11 17	9200 400.02 75	308 7.88 1	0	294 4.82 1	2460 51.22 10	17000 479.40 90	0	--	--	--	6177 50861			
55/12W- 2H 8 S 4-16-65	--	7.9	16100	1360 67.86 38	240 19.74 11	2100 91.31 51	15 0.38	0	97 1.59 1	700 14.57 8	5790 163.28 91	0	--	--	--	4384 10253			
5-20-65	--	8.1	15200	1370 68.36 41	239 19.66 12	1820 79.13 47	15 0.36	0	133 2.18 1	636 13.28 8	5390 152.00 91	0	--	--	--	4405 9537			
55/12W- 2H 9 S 4-13-65	--	7.9	43900	644 32.14 6	1220 100.33 17	10200 443.50 76	224 5.73 1	0	230 3.77 1	2630 54.76 9	18600 524.52 90	0	--	--	--	6629 33631			
5-20-65	--	7.9	44200	678 33.83 6	1200 98.69 17	10000 434.80 76	225 5.75 1	0	244 4.00 1	2600 54.13 9	18300 516.06 90	0	--	--	--	6631 33123			
55/12W- 2H12 S 1- 5-65	--	7.6	28900	1200 59.86 17	654 53.78 16	5250 228.27 67	45 1.15	0	236 3.87 1	1480 30.81 9	11000 310.20 90	0	--	--	--	5666 19745			
1-20-65	--	7.6	33300	1100 54.89 14	745 61.27 16	6125 266.32 69	62 1.59	0	221 3.62 1	1660 34.56 9	12300 346.86 90	0	--	--	--	5813 22101			

**TABLE E-1**  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million reactance value					Mineral constituents in parts per million				
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	Total Dissolved Solids Excl. O <sub>2</sub> & CO <sub>2</sub>	Total Dissolved Solids Incl. O <sub>2</sub> & CO <sub>2</sub>	
COASTAL PL OF LA CO HYDR SUBUNIT U05A0 CENTRAL HYDRO SUBAREA U05A5 L A SAN GABRIEL RIVER HYDRO UNIT U0500																		
55/12W- 2H12 S 1-25-65	--	7.6	31600	1080 53.89 14	713 58.64 16	6000 260.88 70	52 1.33	0	223 3.65 1	1630 33.94 9	12000 338.40 90	0	--	--	--	5631 21585	5631	
1-29-65	--	7.4	32200	1140 56.89 15	740 60.86 16	6000 260.88 69	68 1.74	0	222 3.64 1	1650 34.35 9	12200 344.04 90	0	--	--	--	5892 21907	5892	
1-29-65	--	7.5	32900	1140 56.89 15	752 61.84 16	6125 266.32 69	68 1.74	0	228 3.74 1	1670 34.77 9	12300 346.86 90	0	--	--	--	5941 22167	5941	
2- 3-65	--	7.7	29600	1180 58.88 16	634 52.14 15	5630 244.79 69	58 1.48	0	238 3.90 1	1520 31.65 9	11400 321.48 90	0	--	--	--	5555 20539	5555	
3- 1-65	--	7.6	26000	1180 58.88 19	584 48.03 16	4550 197.83 65	55 1.41	0	236 3.87 1	1290 26.86 9	9800 276.36 90	0	--	--	--	5350 17575	5350	
55/12W- 2J 2 S 10-26-64	--	8.5	697	17 0.85 13	4 0.33 5	128 5.57 82	2 0.05 1	0	179 2.93 43	14 0.29 4	124 3.50 51	6.0 0.10 1	--	--	--	59 383	59	
3- 3-65	--	8.7	566	15 0.75	3 0.25	93 4.04	2 0.05	6 0.20	171 2.80	8 0.17	75 2.12	--	--	--	17	50 337	50	
55/12W- 2J 3 S 10-27-64	--	7.5	23809	864 43.11 16	467 38.41 14	4200 182.62 68	100 2.56 1	0	191 3.13 1	840 17.49 7	8732 246.24 92	0.0	--	--	--	4079 15297	4079	



TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million							Mineral constituents in parts per million						
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fuo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	Total D.S. Exd. 80°C Exd. 105°C as Computed CaCO <sub>3</sub>	
COASTAL PL OF LA CO HYDR SUBUNIT U05A0 CENTRAL HYDRO SUBAREA U05A5																	
5S/12W- 2J 3 S 3- 3-65	--	7.1	11900	712 35.53	21 1.73	6000 260.88	14 0.36	0	167 2.74	262 5.45	9900 279.18	--	--	--	189 U05A5	20268	1864
5S/12W- 2J 4 S 10-27-64	--	8.2	5640	144 7.19 13	75 6.17 11	960 41.74 75	12 0.31 1	0	218 3.57 7	171 3.56 7	1680 47.38 87	0	--	--	--	3149	669
3- 3-65	--	8.3	16600	130 6.49	5 0.41	785 34.13	20 0.51	0	209 3.43	284 5.91	1300 36.66	--	--	--	246	3085	345
5S/12W- 2J 5 S 5-25-65	--	7.6	30700	710 35.43 9	800 65.79 17	6650 289.14 73	120 3.07 1	0	317 5.20 1	1980 41.22 10	12300 346.86 88	0	--	--	--	22716	5065
5S/12W- 2M 1 S 10-29-64	--	8.7	363	9 0.45 10	1 0.08 2	86 3.74 87	2 0.05 1	0	208 3.41 76	0 76	38 1.07 24	0	--	--	--	238	27
5S/12W- 2Q 1 S 6- 2-65	--	8.2	13800	632 31.54 21	244 20.07 13	2250 97.83 65	28 0.72	0	271 4.44 3	593 12.35 8	4730 133.39 89	0	--	--	--	2583	
5S/12W- 2R 2 S 5-27-65	--	8.0	25400	1300 64.87 20	617 50.74 16	4600 200.01 63	36 0.92	0	158 2.59 1	988 20.57 7	10400 293.28 93	0	--	--	--	8610	5785
5S/12W- 2R 3 S 1-20-65	--	7.9	29100	904 45.11 14	607 49.92 15	5250 228.27 70	86 2.20 1	0	187 3.06 1	1360 28.32 9	10500 296.10 90	0	--	--	--	18019	4755
																18799	

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million reagent value				Mineral constituents in parts per million					
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	Total Hardness Expressed as CaCO <sub>3</sub>	
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																	
CENTRAL HYDRO SUBAREA U05A5																	
5S/12W-2R 3 S 2-5-65	--	7.9	27900	833 41.57 12	635 52.22 16	5450 236.97 71	83 2.12 1	0	190 3.11 1	1350 28.11 8	10700 301.74 91	0	--	--	--	19240 4693	
2-8-65	--	8.0	25100	865 43.16 14	554 45.56 15	4780 207.83 70	58 1.48	0	200 3.28 1	1140 23.73 8	9630 271.57 91	0	--	--	--	17200 4440	
2-17-65	--	8.0	25600	896 44.71 15	556 45.73 15	4730 205.66 69	50 1.28	0	209 3.43 1	1080 22.49 8	9640 271.85 91	0	--	--	--	17200 4526	
2-19-65	--	8.1	23500	896 44.71 17	500 41.12 15	4150 180.44 68	35 0.89	0	212 3.47 1	963 20.05 7	8700 245.34 91	0	--	--	--	15500 4295	
3-1-65	--	7.6	24000	952 47.50 17	491 40.38 15	4280 186.09 68	38 0.97	0	230 3.77 1	1030 21.44 8	8930 251.83 91	3.0 0.05	--	--	--	16000 4398	
5S/12W-3A 1 S 10-28-64	--	7.5	5945	590 29.44 44	114 9.38 14	640 27.83 42	10 0.26	0	182 2.98 4	1170 24.36 36	1440 40.61 60	0.0	--	--	--	15837 1943	
7-27-65	--	7.5	12600	888 44.31 32	168 13.82 10	1860 80.87 58	15 0.38	0	192 3.15 2	1099 22.88 16	4050 114.21 81	0	--	--	--	4053 2909	
5S/12W-11G 2 S 10-16-64	--	8.6	332	7 0.35 10	1 0.08 2	69 3.00 87	1 0.03 1	0	187 3.06 87	0 0.45 13	16 0.45 13	0.0	--	--	--	22 186	

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				million per million value				Mineral constituents in parts per million				
				Calcium Mg	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Ful- vate F	Boron B	Sul- fa- te SO <sub>2</sub>	IDS Exp. Rec. Exp. Rec.	Hardness as CaCO <sub>3</sub>			
L A SAN GABRIEL RIVER HYDRO UNIT U0500																				
COASTAL PL OF LA CO HYDR SUBUNIT U05A0																				
CENTRAL HYDRO SUBAREA U05A5																				
5S/12W-11G 3 S 10-22-64	--	7.6	13774	828 41.32 28	200 16.45 11	2000 86.96 60	20 0.51	0	150 2.46 2	288 6.00 4	4852 136.83 94	14 0.23	--	--	--	8276	2891			
5S/12W-11G 5 S 10-15-64	--	8.5	508	17 0.85 15	3 0.25 4	101 4.39 79	3 0.08 1	0	309 5.06 91	0	17 0.48 9	0.0	--	--	--	293	55			

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million percent reactance value					Mineral constituents in parts per million				
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	TDS Evap 180°C as CaCO <sub>3</sub> Computed	Total hardness 105°C as CaCO <sub>3</sub>	
SAN FERNANDO HYDRO SUBUNIT U05B0																		
SAN FERNANDO HYDRO SUBAREA U05B1																		
1N/13W-18N 1 S 6-30-65	68	8.0	526	54 2.69 51	12 0.99 19	35 1.52 29	3 0.08 2	0	209 3.43 63	59 1.23 23	26 0.73 13	4 0.06 1	0.6	0.14	--	327 296	184	
1N/13W-20G 1 S 6-30-65	70	7.9	591	48 2.40 40	15 1.23 21	53 2.30 39	1 0.03 1	0	240 3.93 65	49 1.02 17	30 0.85 14	18 0.29 5	0.5	0.11	--	364 333	182	
1N/13W-24P 2 S 2- 2-65	--	7.2	3200	455 22.70 50	223 18.34 40	102 4.43 10	12 0.31 1	0	2209 36.21 81	14 0.29 1	298 8.40 19	4 0.06 0	0.2	0.36	--	2330 2195	2054	
5-13-65	--	7.1	3100	473 23.60 53	188 15.46 35	115 5.00 11	8 0.20 1	0	2101 34.44 78	10 0.21 22	344 9.70 22	0	2.4	0.35	--	2586 2174	1955	
1N/13W-33N 1 S 4-19-65	--	7.3	678	67 3.34 49	26 2.14 31	31 1.35 20	2 0.05 1	0	227 3.72 54	59 1.23 18	44 1.24 18	41 0.66 10	0.4	0.10	--	422 382	274	
1N/14W- 9H 4 S 6-30-65	65	8.0	541	61 3.04 54	17 1.40 25	26 1.13 20	3 0.08 1	0	243 3.98 70	50 1.04 18	18 0.51 9	8 0.13 2	0.6	0.11	--	344 303	222	
1N/14W-14B 1 S 4-20-65	--	7.7	485	50 2.50 50	14 1.15 23	30 1.30 26	3 0.08 2	0	215 3.52 70	46 0.96 19	17 0.48 10	5 0.08 2	0.6	0.10	--	276 271	183	
1N/14W-16A 1 S 4-20-65	--	7.6	493	58 2.89 56	14 1.15 22	24 1.04 20	3 0.08 2	0	212 3.47 66	67 1.39 27	11 0.31 6	3 0.05 1	0.6	0.09	--	295 285	202	

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reactance value				Mineral constituents in parts per million						
				Calcium Mg	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlor- ide Cl	Ni- trate NO <sub>3</sub>	Fluor- ide F	Boron B	Sili- ca SiO <sub>2</sub>	Total hardness as CaCO <sub>3</sub>		
SAN FERNANDO HYDRO SUBUNIT U0580				L A SAN GABRIEL RIVER HYDRO UNIT U0500														
SAN FERNANDO HYDRO SUBAREA U0581																		
1N/14W-23E 1 S 4-20-65	--	7.6	872	89 4.44 48	26 2.14 23	61 2.65 28	4 0.10 1	0	271 4.44 47	181 3.77 40	32 0.90 10	15 0.24 3	0.4	0.18	--	329 564 542		
1N/14W-28B 1 S 4-20-65	--	7.5	1497	152 7.58 45	46 3.78 22	124 5.34 32	5 0.13 1	0	439 7.20 43	364 7.58 45	69 1.95 12	6 0.10 1	0.4	0.44	--	568 1082 983		
1N/15W-1K 2 S 7- 6-65	66	8.0	709	80 3.99 53	20 1.64 22	41 1.78 24	4 0.10 1	0	245 4.02 53	126 2.62 35	25 0.71 9	12 0.19 3	0.4	0.13	--	282 449 429		
1N/16W-14K 1 S 4-20-65	--	7.7	2433	97 4.84 18	60 4.93 19	374 16.26 62	8 0.20 1	0	447 7.33 27	740 15.41 57	149 4.20 16	1 0.02	0.6	0.50	--	489 1700 1650		
1N/17W-10D 2 S 4-20-65	--	7.2	2019	207 10.33 40	143 11.76 46	81 3.52 14	8 0.20 1	0	515 8.44 33	731 15.22 59	65 1.83 7	7 0.11	0.8	0.35	--	1105 1891 1496		
1N/17W-26A 1 S 4-20-65	--	7.1	2171	275 13.72 47	151 12.42 42	67 2.91 10	8 0.20 1	0	495 8.11 28	900 18.74 65	64 1.80 6	1 0.02	1.0	0.20	--	1308 1885 1711		
2N/14W-19Q 1 S 12- 2-64	--	8.4	522	58 2.89 54	16 1.32 25	24 1.04 19	4 0.10 2	0	244 4.00 74	44 0.92 17	16 0.45 8	0	--	--	--	211 282		
2N/14W-30A 1 S 12- 2-64	--	7.8	551	58 2.89 54	16 1.32 25	24 1.04 19	4 0.10 2	0	179 2.93 55	69 1.44 27	34 0.96 18	0	--	--	--	211 293		



TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				Mineral constituents in parts per million				
				Calcium	Magne- sium	Sodium	Potas- sium	Carbon- ate	Bicar- bonate	Sulfate	Chlo- ride	Ni- trate	Fluo- ride	Boron	Sili- ca	Total TDS Evap 180°C as CaCO3 Computed
Date sampled				Co	Mg	Na	K	CO3	HCO3	SO4	Cl	NO3	F	B	SiO2	
L A SAN GABRIEL RIVER HYDRO UNIT U0500																
SAN FERNANDO HYDRO SUBUNIT				U05B0												
SAN FERNANDO HYDRO SUBAREA				U05B1												
2N/14W-30A 3 S 12- 2-64	--	8.2	546	61 3.04 53	17 1.40 25	27 1.17 20	4 0.10 2	0	239 3.92 69	63 1.31 23	17 0.48 8	0	--	--	--	222
4-21-65	65	8.3	549	62 3.09 53	18 1.48 26	26 1.13 19	4 0.10 2	0	240 3.93 70	48 1.00 18	18 0.51 9	9 0.15 3	0.5	0.13	--	358 229
2N/17W-22C 2 S 4-20-65	--	7.3	785	70 3.49 41	23 1.89 22	70 3.04 36	3 0.08 1	0	349 5.72 68	84 1.75 21	33 0.93 11	2 0.03	0.6	0.05	--	457 269
SYLMAR HYDRO SUBAREA				U05B2												
3N/15W-23P 1 S 4-21-65	--	7.9	444	35 1.75 39	11 0.90 20	41 1.78 39	4 0.10 2	0	193 3.16 69	38 0.79 17	20 0.56 12	4 0.06 1	0.3	0.24	--	249 133
3N/15W-25G 1 S 4-21-65	--	7.9	376	34 1.70 45	8 0.66 17	32 1.39 37	2 0.05 1	0	198 3.25 83	11 0.23 6	14 0.39 10	3 0.05 1	0.3	0.02	--	220 118
3N/15W-33Q 1 S 4-21-65	--	7.8	556	64 3.19 56	14 1.15 20	28 1.22 21	5 0.13 2	0	223 3.65 64	67 1.39 24	22 0.62 11	5 0.08 1	0.3	0.09	--	332 217
3N/15W-34P 1 S 12- 2-64	--	8.2	481	51 2.54 52	17 1.40 29	20 0.87 18	4 0.10 2	0	208 3.41 71	42 0.87 18	19 0.54 11	0	--	--	--	197
																255

TABLE C-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents percent				Mineral constituents in parts per million					
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fuo- ride F	Boron B	S. H. Co S O <sub>2</sub>	Total Dissolved Solids (mg/L)	
SAN FERNANDO HYDRO SUBUNIT U05BU																	
SYLMAR HYDRO SUBAREA U05B2																	
3N/15W-34P11 S 4-23-65	--	7.7	626	66 3.29 50	22 1.81 28	32 1.39 21	3 0.08 1	0	260 4.26 65	62 1.29 20	21 0.59 9	24 0.39 6	0.3	0.25	--	380 558	255
TUJUNGA HYDRO SUBAREA U05B3																	
2N/14W-5L 1 S 4-21-65	--	8.2	740	43 2.15 28	25 2.06 27	78 3.39 44	5 0.13 2	0	227 3.72 52	113 2.35 33	38 1.07 15	0	0.6	0.46	--	444 415	211
2N/14W-11A 1 S 4-19-65	--	8.0	624	66 3.29 50	17 1.40 21	41 1.78 27	4 0.10 2	0	276 4.52 68	67 1.39 21	19 0.54 8	10 0.16 2	0.9	0.31	--	394 361	235
2N/14W-11N 1 S 4-19-65	--	7.6	912	96 4.79 50	34 2.80 29	44 1.91 20	3 0.08 1	0	348 5.70 61	67 1.39 15	57 1.61 17	37 0.60 6	0.4	0.14	--	605 510	380
2N/14W-12C 2 S 4-19-65	62	7.9	599	60 2.99 47	19 1.56 24	41 1.78 28	4 0.10 2	0	277 4.54 73	54 1.12 18	17 0.48 8	6 0.10 2	1.1	0.34	--	374 339	226
3N/13W-32J 1 S 4-19-65	--	7.8	730	74 3.69 47	25 2.06 26	49 2.13 27	2 0.05 1	0	312 5.11 68	80 1.67 22	26 0.73 10	4 0.06 1	1.4	0.36	--	483 415	288
3N/14W-29F 2 S 4-21-65	--	8.5	702	2 0.10 1	0	165 7.17 98	1 0.03 3	12 0.40 3	378 6.20 82	15 0.31 4	21 0.59 8	1 0.02	0.2	0.29	--	410 403	3

**TABLE E-1**  
**ANALYSES OF GROUND WATER**  
**LOS ANGELES DRAINAGE PROVINCE (U)**

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	TDS Evap 105°C Computed CaCO <sub>3</sub>	Total Hardness as CaCO <sub>3</sub>	
SAN FERNANDO HYDRO SUBUNIT																		
TUJUNGA HYDRO SUBAREA																		
U05B0																		
L A SAN GABRIEL RIVER HYDRO UNIT U0500																		
U05B3																		
3N/14W-29J 1 S 4-21-65	--	8.2	788	77 3.84 44	36 2.96 34	41 1.78 20	0.20 2	8	0	381 6.24 73	83 1.73 20	21 0.59 7	1 0.02	0.5	0.07	--	502 455	340
3N/14W-32M 1 S 4-21-65	--	7.1	570	57 2.84 49	15 1.23 21	36 1.57 27	0.10 2	4	0	233 3.82 66	26 0.54 9	28 0.79 14	37 0.60 10	0.2	0.08	--	340 318	204
3N/14W-32M 2 S 4-21-65	--	7.2	590	55 2.74 45	16 1.32 22	43 1.87 31	4 0.10 2	4	0	244 4.00 66	30 0.62 10	31 0.87 14	37 0.60 10	0.5	0.06	--	365 336	203
3N/14W-33K 1 S 4-21-65	--	6.9	1671	186 9.28 46	71 5.84 29	110 4.78 24	7 0.18 1	7	0	409 6.70 34	562 11.70 59	47 1.33 7	2 0.03	3.4	0.74	--	1278 1190	757
VERDUGO HYDRO SUBAREA																		
U05B4																		
2N/13W-28N 1 S 4-19-65	68	7.0	696	57 2.84 43	29 2.38 36	31 1.35 20	3 0.08 1	3	0	167 2.74 42	31 0.65 10	53 1.49 23	100 1.61 25	0.1	0.03	--	491 386	261
2N/13W-29F 1 S 4-19-65	68	7.0	506	41 2.05 43	20 1.64 34	24 1.04 22	2 0.05 1	2	0	132 2.16 45	24 0.50 10	34 0.96 20	73 1.18 25	0.1	0	--	374 283	185
2N/13W-33G 1 S 4-19-65	68	7.0	646	60 2.99 47	26 2.14 34	25 1.09 17	3 0.08 1	3	0	166 2.72 44	31 0.65 11	49 1.38 22	88 1.42 23	0.1	0.02	--	454 364	257

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (macro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million percent reactance value					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fer- ric F	Bor- on B	Si- li- ca SiO <sub>2</sub>	TDS Evap Res- idue Evap US°C Compared	Total Hard- ness as CaCO <sub>3</sub>	
SAN FERNANDO HYDRO SUBUNIT VERDUGO HYDRO SUBAREA																		
U05B0																		
L A SAN GABRIEL RIVER HYDRO UNIT U0500																		
U05B4																		
2N/13W-33R 1 S 4-19-65	68	7.2	454	43 2.15 49	15 1.23 28	22 0.96 22	2 0.05 1	0	143 2.34 55	14 0.29 7	25 0.71 17	59 0.95 22	0.4	0.03	--	301 251	169	

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per million reactance value					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fuo- ride F	Beren- co B	SiO <sub>2</sub>	IO <sub>3</sub> - Evap 180°C Evap 105°C Computed CaCl <sub>2</sub>	Total hardness as CaCl <sub>2</sub>	
RAYMOND HYDRO SUBUNIT PASADENA HYDRO SUBAREA																		
				U05C0					U05C1					U0500				
1N/12W-21K 1 S 10-26-64	--	7.2	228	18 0.90 39	6 0.49 21	20 0.87 38	2 0.05 2	0	90 1.48 67	5 0.10 5	10 0.28 13	21.0 0.34 15	1.4	0.08	30	180	70	
3-23-65	--	7.7	244	18 0.90 39	6 0.49 21	20 0.87 38	2 0.05 2	0	87 1.43 64	4 0.08 4	15 0.42 19	20 0.32 14	1.0	0.05	--	158	70	
1N/12W-26A 1 S 10-26-64	--	7.4	398	37 1.85 46	10 0.82 20	30 1.30 32	2 0.05 1	0	145 2.38 61	13 0.27 7	21 0.59 15	40.0 0.65 17	1.1	0.14	29	270	134	
3-23-65	--	7.8	382	31 1.55 42	10 0.82 22	30 1.30 35	2 0.05 1	0	146 2.39 64	18 0.37 10	20 0.56 15	24 0.39 11	0.8	0.09	--	212	119	
1N/12W-26C 1 S 10-26-64	--	7.4	319	23 1.15 36	5 0.41 13	37 1.61 50	1 0.03 1	0	124 2.03 66	24 0.50 16	13 0.37 12	12.0 0.19 6	1.6	0.28	25	220	78	
3-23-65	--	8.0	413	16 0.80 21	4 0.33 8	63 2.74 70	1 0.03 1	0	116 1.90 49	63 1.31 34	23 0.65 17	3 0.05 1	1.6	0.52	--	251	57	
1N/12W-34E 1 S 10-23-64	--	7.8	370	36 1.80 47	11 0.90 24	24 1.04 27	2 0.05 1	0	147 2.41 66	23 0.48 13	16 0.45 12	19.0 0.31 8	0.4	0.09	--	222	135	
3-24-65	--	7.6	388	34 1.70 45	10 0.82 22	27 1.17 31	2 0.05 1	0	157 2.57 67	24 0.50 13	19 0.54 14	14 0.23 6	0.7	0.16	--	228	126	



TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million								
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boreon B	Sili- co SiO <sub>2</sub>	Total Hardness as CaCO <sub>3</sub>		
RAYMOND HYDRO SUBUNIT																		
PASADENA HYDRO SUBAREA																		
U05CU																		
U05C1																		
1N/12W-34E 1 S 8-11-65	--	8.0	368	34 1.70 45	10 0.82 22	27 1.17 31	2 0.05 1	0	147 2.41 65	23 0.48 13	18 0.51 14	18.0 0.29 8	--	--	--	204	126	
1N/12W-34N 1 S 10-23-64	--	8.0	1090	111 5.54 47	41 3.37 29	63 2.74 23	3 0.08 1	0	299 4.90 42	162 3.37 29	85 2.40 21	64.0 1.03 9	0.4	0.30	--	744	446	
3-23-65	--	8.0	1110	124 6.19 54	31 2.55 22	61 2.65 23	3 0.08 1	0	304 4.98 44	155 3.23 29	84 2.37 21	42 0.68 6	0.7	0.29	--	677	437	
1N/12W-35B 1 S 10-23-64	--	7.7	360	33 1.65 42	10 0.82 21	32 1.39 36	2 0.05 1	0	124 2.03 55	28 0.58 16	20 0.56 15	33.0 0.53 14	1.0	0.09	--	242	124	
3-24-65	--	8.1	330	27 1.35 43	9 0.74 23	24 1.04 33	1 0.03 1	0	128 2.10 66	16 0.33 10	16 0.45 14	18 0.29 9	0.8	0.10	--	220	108	
MONK HILL HYDRO SUBAREA																		
U05C2																		
1N/12W-6M 6 S 10-23-64	--	7.4	476	49 2.45 49	16 1.32 27	26 1.13 22	2 0.05 1	0	210 3.44 71	19 0.40 8	26 0.73 15	18.0 0.29 6	0.6	0.08	39	315	189	
3-24-65	59	8.0	1248	45 2.25 19	15 1.23 10	193 8.39 70	5 0.13 1	0	151 2.47 21	310 6.45 54	109 3.07 26	0	0.6	0.12	--	774	114	
U05C3																		

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					Mineral constituents in million equivalents per million					Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	Total hardness as CaCO <sub>3</sub>		
RAYMOND HYDRO SUBUNIT U05C0																		
MONK HILL HYDRO SUBAREA U05C2																		
1N/12W- 8H 1 S 10-23-64	--	7.4	600	67 3.34	23 1.89	29 1.26	3 0.08	0	303 4.97	24 0.50	17 0.48	28.0 0.45	1.0	0.14	30	380	262	
1N/12W- 8H 2 S 3-24-65	70	7.8	396	38 1.90	12 0.99	19 0.83	2 0.05	0	133 2.18	15 0.31	21 0.59	34 0.55	0.8	0	--	283	145	
1N/12W- 9E 1 S 10-23-64	--	7.7	320	36 1.80	7 0.58	24 1.04	1 0.03	0	133 2.18	3 0.06	17 0.48	26.0 0.42	1.2	0	--	244	119	
3-24-65	72	7.8	300	25 1.25	10 0.82	18 0.78	1 0.03	0	120 1.97	4 0.08	15 0.42	20 0.32	1.0	0	--	228	104	
1N/12W- 9R 1 S 3-24-65	--	7.4	329	26 1.30	10 0.82	19 0.83	1 0.03	0	104 1.70	0	22 0.62	37 0.60	0.7	0	--	243	106	
SANTA ANITA HYDRO SUBAREA U05C3																		
1N/11W-21C 2 S 10-23-64	--	7.6	400	41 2.05	11 0.90	30 1.30	1 0.03	0	178 2.92	32 0.67	12 0.34	15.0 0.24	1.0	3.20	--	254	148	
3-23-65	--	8.0	386	38 1.90	10 0.82	26 1.13	1 0.03	0	180 2.95	21 0.44	14 0.39	7 0.11	1.0	0.22	--	219	136	
				49	21	29	1		76	11	10	3				207		

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million							Mineral constituents in parts per million						
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	Evaporite as CaCO <sub>3</sub>	Total hardness as CaCO <sub>3</sub>
RAYMOND HYDRO SUBUNIT																	
SANTA ANITA HYDRO SUBAREA																	
U05C0																	
L A SAN GABRIEL RIVER HYDRO UNIT U0500																	
U05C3																	
1N/11W-21C 7 S 7-2-65	66	7.8	461	54 2.69 57	11 0.90 19	25 1.09 23	1 0.03 1	0	197 3.23 69	30 0.62 13	15 0.42 9	26 0.42 9	1.0	0.09	--	270 260	180
1N/11W-21G 2 S 10-23-64	--	7.8	480	44 2.20 44	7 0.58 12	50 2.17 43	2 0.05 1	0	193 3.16 64	36 0.75 15	21 0.59 12	27.0 0.44 9	0.8	0.16	--	312 283	139
3-23-65	--	7.7	616	67 3.34 54	21 1.73 28	25 1.09 18	2 0.05 1	0	240 3.93 64	48 1.00 16	26 0.73 12	29 0.47 8	0.7	0.14	--	375 337	254
1N/11W-21H 3 S 7-28-65	68	7.8	521	41 2.05 38	9 0.74 14	59 2.27 48	1 0.03 1	0	200 3.28 61	72 1.50 28	16 0.51 9	8 0.13 2	1.3	0.22	--	320 308	140

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per percent reactance value					Mineral constituents in parts per million					Total hardness as CaCO <sub>3</sub>
				Calcium	Magne- sium	Sodium	Potas- sium	Carbon- ate	Bicar- bonate	Sulfate	Chlo- ride	Ni- trate	Fluo- ride	Boron	Sili- co	TDS			
Date sampled				Co	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>	Computed			
SAN GABRIEL VALLEY HYDRO SUBUNIT U0500																			
MAIN SAN GABRIEL HYDRO SUBAREA U05D1																			
1S/ 9W- 1E 1 S 8-10-65	69	8.2	914	100 4.99 51	35 2.88 30	42 1.83 19	2 0.05 1	0	204 3.34 34	128 2.66 27	54 1.52 16	140 2.26 23	--	--	--	601	394		
1S/ 9W- 2Q 1 S 8-10-65	70	8.1	620	61 3.04 49	21 1.73 28	33 1.43 23	2 0.05 1	0	192 3.15 51	53 1.10 18	32 0.90 15	65.0 1.05 17	--	--	--	239			
1S/ 9W- 3C 1 S 8-10-65	77	8.1	725	77 3.84 50	28 2.30 30	35 1.52 20	3 0.08 1	0	218 3.57 46	79 1.64 21	30 0.85 11	104 1.68 22	--	--	--	361	307		
1S/ 9W- 4R 1 S 8-10-65	71	7.9	643	64 3.19 49	22 1.81 28	33 1.43 22	3 0.08 1	0	188 3.08 48	52 1.08 17	43 1.21 19	65.0 1.05 16	--	--	--	463	250		
1S/10W- 3A 1 S 12- 9-64	--	7.9	694	91 4.54 62	20 1.64 22	25 1.09 15	2 0.05 1	0	290 4.75 66	41 0.85 12	20 0.56 8	66.0 1.06 15	0.6	0.03	30	458	309		
8-11-65	69	7.5	722	87 4.34 58	22 1.81 24	30 1.30 17	2 0.05 1	0	289 4.74 64	42 0.87 12	24 0.68 9	70 1.13 15	--	--	--	419	308		
9- 2-65	69	8.1	694	89 4.44 60	22 1.81 24	26 1.13 15	2 0.05 1	0	281 4.61 63	43 0.90 12	21 0.59 8	75 1.21 17	0.5	0.03	--	440	313		
1S/10W- 3C 2 S 8-31-65	--	8.1	636	86 4.29 63	17 1.40 21	24 1.04 15	3 0.08 1	0	273 4.47 67	39 0.81 12	26 0.73 11	44 0.71 11	0.3	0.19	--	390	285		
																374			

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million					
				Calcium	Magne- sium	Sodium	Potas- sium	Carbon- ate	Bicar- bonate	Sulfate	Chlo- ride	No- trate	Fer- rite	B	Silica
Date sampled				Co	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>
SAN GABRIEL VALLEY HYDRO SUBUNIT U0500															
MAIN SAN GABRIEL HYDRO SUBAREA U0501															
1S/10W- 3D 1 S 12- 9-64	--	7.8	438	61 3.04	1.2 0.99	12 0.52	3 0.08	0	226 3.70	33 0.69	7 0.20	6.0 0.10	0.3	0.06	--
				66	21	11	2		79	15	4	2			
1-20-65	--	7.8	465	57 2.84	1.5 1.23	32 1.39	3 0.08	0	218 3.57	53 1.10	25 0.71	2.0 0.03	0.4	0.17	--
				51	22	25	1		66	20	13	1			
3-30-65	67	7.6	500	60 2.99	2.6 2.14	18 0.78	3 0.08	0	312 5.11	23 0.48	17 0.48	1 0.02	0.4	0.15	--
				50	36	13	1		84	8	8				
8-30-65	71	8.0	440	54 2.69	1.4 1.15	16 0.70	3 0.08	0	187 3.06	28 0.58	21 0.59	21 0.34	0.3	0.09	--
				58	25	15	2		67	13	13	7			
1S/10W- 3K 3 S 12- 7-64	--	8.0	677	84 4.19	2.1 1.73	23 1.00	3 0.08	0	256 4.20	46 0.96	21 0.59	83.0 1.34	0.6	0.04	--
				60	25	14	1		59	14	6	19			
9- 1-65	68	8.3	688	83 4.14	2.6 1.81	25 1.09	3 0.08	10	228 3.74	45 0.94	26 0.73	94 1.52	0.4	0.04	--
				58	25	15	1		52	13	10	21			
1S/10W- 4G 1 S 10- 9-64	--	7.4	460	53 2.84	1.6 1.32	20 0.87	4 0.10	0	211 3.46	28 0.58	20 0.56	8.0 0.13	0.2	0.01	--
				54	27	18	2		73	12	12	3			
12- 8-64	--	7.8	503	74 3.69	1.3 1.07	11 0.48	4 0.10	0	231 3.79	31 0.65	14 0.39	30.0 0.48	0.4	0.06	--
				69	20	9	2		71	12	7	9			



TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents percent				Mineral constituents in parts per million					
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	Total hardness as CaCO <sub>3</sub>	
L A SAN GABRIEL RIVER HYDRO UNIT U0500																	
SAN GABRIEL VALLEY HYDRO SUBUNIT U0500																	
MAIN SAN GABRIEL HYDRO SUBAREA U0501																	
1S/10W- 4G 1 S 5-11-65	68	7.2	510	73 3.64 65	11 0.90 16	22 0.96 17	4 0.10 2	0	279 4.57 80	13 0.27 5	28 0.79 14	5 0.08 1	0.2	0.17	--	304 227	
5-30-65	68	7.1	541	69 3.44 60	16 1.32 23	19 0.83 15	5 0.13 2	0	283 4.64 83	19 0.40 7	14 0.39 7	10 0.16 3	0.3	0.14	--	310 238	
1S/10W- 4R 2 S 12- 8-64	--	7.7	629	85 4.24 65	16 1.32 20	21 0.91 14	3 0.08 1	0	264 4.33 66	41 0.85 13	20 0.56 8	53.0 0.85 13	0.4	0.03	--	417 278	
1S/10W- 6N 1 S 12-11-64	--	7.9	393	56 2.79 68	11 0.90 22	8 0.35 8	3 0.08 2	0	187 3.06 74	30 0.62 15	10 0.28 7	9.0 0.15 4	0.4	0.05	--	200 185	
9- 1-65	64	8.2	430	56 2.79 64	14 1.15 26	8 0.35 8	3 0.08 2	0	194 3.18 72	30 0.62 14	17 0.48 11	9 0.15 3	0.3	0.03	--	209 197	
1S/10W- 7A 1 S 8-10-65	73	8.0	716	96 4.79 67	20 1.64 23	15 0.65 9	3 0.08 1	0	215 3.52 48	49 1.02 14	88 2.48 34	18 0.29 4	--	--	--	322 395	
1S/10W- 7A 6 S 12- 8-64	--	8.0	765	104 5.19 67	22 1.81 23	15 0.65 8	4 0.10 1	0	222 3.64 46	53 1.10 14	100 2.82 36	18.0 0.29 4	0.5	0.10	--	500 426	
5- 4-65	63	7.9	740	68 3.39 41	49 4.03 49	17 0.74 9	4 0.10 1	0	228 3.74 45	54 1.12 14	111 3.13 38	15 0.24 3	0.2	0.08	--	534 430	

TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million							
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- co SiO <sub>2</sub>	Total dissolved solids as CaCO <sub>3</sub>	
SAN GABRIEL VALLEY HYDRO SUBUNIT U0500																	
MAIN SAN GABRIEL HYDRO SUBAREA U05D1																	
1S/10W- 7K 2 S 12- 8-64	--	7.8	829	120 5.99 69	23 1.89 22	14 0.61 7	5 0.13 2	0	287 4.70 54	51 1.06 16	49 1.38 18	100.0 1.61 18	0.4	0.05	--	520 504	
1S/10W- 8A 2 S 12- 8-64	--	7.8	491	72 3.59 67	14 1.15 22	11 0.48 9	4 0.10 2	0	217 3.56 67	33 0.69 13	19 0.54 10	33.0 0.53 10	0.4	0.05	--	280 293	
1S/10W- 9F 1 S 12- 9-64	--	7.9	615	87 4.34 69	14 1.15 18	16 0.70 11	4 0.10 2	0	236 3.87 62	49 1.02 16	25 0.71 11	37.0 0.60 10	0.4	0.06	22	404 370	
8-31-65	68	8.2	619	87 4.34 66	16 1.32 20	18 0.78 12	4 0.10 2	0	232 3.80 59	55 1.15 18	26 0.73 11	48 0.77 12	0.3	0.06	--	375 368	
1S/10W- 9F 2 S 8-31-65	68	7.9	532	65 3.24 61	15 1.23 23	18 0.78 15	4 0.10 2	0	165 2.70 51	55 1.15 22	25 0.71 13	46 0.74 14	0.3	0.07	--	327 309	
1S/10W- 9H 2 S 12- 9-64	--	8.0	563	73 3.64 63	15 1.23 21	20 0.87 15	2 0.05 1	0	232 3.80 66	38 0.79 14	15 0.42 7	49.0 0.79 14	0.6	0.03	27	367 354	
9- 1-65	69	7.7	583	73 3.64 62	16 1.32 22	20 0.87 15	2 0.05 1	0	229 3.75 62	38 0.79 13	20 0.56 9	59 0.95 16	0.5	0.02	--	346 341	
1S/10W-10C 1 S 12- 7-64	--	7.7	586	73 3.64 60	19 1.56 26	18 0.78 13	3 0.08 1	0	219 3.59 60	50 1.04 17	15 0.42 7	59.0 0.95 16	0.4	0.04	28	382 373	

**TABLE E-1**  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million percent reactance value				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlor- ide Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	T.D.S. Evap. 180°C Computed CaCO <sub>3</sub>	Total Hardness at 180°C CaCO <sub>3</sub>
SAN GABRIEL VALLEY HYDRO SUBUNIT U05D0																	
MAIN SAN GABRIEL HYDRO SUBAREA U05D1																	
1S/10W-10C 1 S 5- 4-65	65	7.9	570	70 3.49	23 1.89	21 0.91	3 0.08	0	220 3.61	51 1.06	22 0.62	59 0.95	0.1	0.06	--	376 357	269
8-10-65	94	7.7	613	74 3.69	19 1.56	25 1.09	3 0.08	0	234 3.84	46 0.96	17 0.48	70 1.13	--	--	--	263	263
9- 1-65	69	8.3	602	73 3.64	20 1.64	19 0.83	3 0.08	11 0.37	195 3.20	46 0.96	21 0.59	74 1.19	0.4	0.02	--	369	264
1S/10W-10P 1 S 12- 7-64	--	8.0	584	71 3.54	19 1.56	21 0.91	3 0.08	0	220 3.61	52 1.08	14 0.39	59.0 0.95	0.5	0.02	--	397 348	255
9- 1-65	67	8.4	558	67 3.34	20 1.64	19 0.83	2 0.05	5 0.17	203 3.33	46 0.96	17 0.48	61 0.98	0.5	0	--	310 337	249
1S/10W-19N 1 S 5- 4-65	--	7.8	460	48 2.40	23 1.89	21 0.91	4 0.10	0	228 3.74	29 0.60	17 0.48	26 0.42	0.1	0.09	--	306 280	215
1S/10W-20G 4 S 8-10-65	89	8.0	548	58 2.89	17 1.40	35 1.52	1 0.03	0	218 3.57	40 0.83	27 0.76	33 0.53	--	--	--	215	215
1S/10W-23K 1 S 8-10-65	75	7.7	680	69 3.44	22 1.81	44 1.91	1 0.03	0	226 3.70	108 2.25	31 0.87	25 0.40	--	--	--	411	263

TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				Mineral constituents in parts per million					
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	Total Dissolved Solids Equiv. 105°C Computed	Total Dissolved Solids Analyzed
L A SAN GABRIEL RIVER HYDRO UNIT U0500																	
SAN GABRIEL VALLEY HYDRO SUBUNIT U05D0																	
MAIN SAN GABRIEL HYDRO SUBAREA U05D1																	
1S/10W-28K 5 S 7- 9-65	70	7.8	622	61 3.04 46	21 1.73 26	42 1.83 28	2 0.05	0	232 3.80 58	80 1.67 25	24 0.68 10	26 0.42 6	0.5	0.04	--	425 371	239
1S/10W-30G 4 S 7- 7-65	68	8.1	458	53 2.64 57	13 1.07 23	21 0.91 19	2 0.05	0	212 3.47 73	22 0.46 10	18 0.51 11	19 0.31 7	0.5	0	--	249 253	186
1S/10W-33D 3 S 7-28-65	70	7.7	644	65 3.24 48	21 1.73 26	40 1.74 26	1 0.03	0	217 3.56 53	80 1.67 25	33 0.93 14	35 0.56 8	0.4	0.04	--	450 382	249
1S/11W-1M 1 S 12-11-64	--	8.2	362	52 2.59 68	9 0.74 19	10 0.43 11	2 0.05	0	181 2.97 78	28 0.58 15	7 0.20 5	5.0 0.08 2	0.4	0.02	--	190 202	167
8-31-65	67	8.2	426	59 2.94 65	13 1.07 24	10 0.43 10	3 0.08	0	225 3.69 81	27 0.56 12	9 0.25 5	4.5 0.07 2	0.4	0.04	--	208 237	201
1S/11W-2J 1 S 8-11-65	68	7.7	601	86 4.29 65	20 1.64 25	15 0.65 10	2 0.05	0	337 5.52 84	27 0.56 8	10 0.28 4	14 0.23 3	--	--	--	297 340	297
1S/11W-2J 3 S 7-13-65	70	7.8	564	80 3.99 64	20 1.64 26	13 0.57 9	3 0.08	0	303 4.97 79	45 0.94 15	8 0.23 4	8 0.13 2	0.7	0.06	--	365 327	282
1S/11W-4L 2 S 8-10-65	68	8.2	536	57 2.84 52	20 1.64 30	21 0.91 17	1 0.03	0	187 3.06 58	23 0.48 9	23 0.65 12	70.0 1.13 21	--	--	--	307	224

**TABLE E-1**  
**ANALYSES OF GROUND WATER**  
**LOS ANGELES DRAINAGE PROVINCE (U)**

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					Mineral constituents in parts per million									
				Calcium Co	Magne-sium Mg	Sodium Na	Potas-sium K	Carbon-ate CO <sub>3</sub>	Bicar-bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo-ride Cl	Ni- trate NO <sub>3</sub>	Fluo-ride F	Boron B	Sili- ca SiO <sub>2</sub>	Total Hardness at 105°C Computed CaCO <sub>3</sub>		
L A SAN GABRIEL RIVER HYDRO UNIT U0500																		
SAN GABRIEL VALLEY HYDRO SUBUNIT U05D0																		
MAIN SAN GABRIEL HYDRO SUBAREA U05D1																		
1S/11W-7N 2 S 8- 9-65	69	7.9	345	35 1.75 49	12 0.99 28	19 0.83 23	0	0	181 2.97 84	7 0.15 4	8 0.23 7	11 0.18 5	--	--	--	137		
1S/11W-10H 1 S 8-10-65	66	8.3	503	60 2.99 52	17 1.40 25	29 1.26 22	2 0.05 1	0	262 4.29 75	24 0.50 9	24 0.68 12	15.0 0.24 4	--	--	--	220		
1S/11W-10N 6 S 8-10-65	64	8.3	385	47 2.35 60	12 0.99 25	13 0.57 14	1 0.03 1	0	206 3.38 83	13 0.27 7	9 0.25 6	10 0.16 4	--	--	--	167		
1S/11W-11F 4 S 8-10-65	81	7.8	360	42 2.10 57	11 0.90 25	14 0.61 17	2 0.05 1	0	160 2.62 75	21 0.44 13	11 0.31 9	8.0 0.13 4	--	--	--	150		
1S/11W-12B 2 S 12-11-64	--	7.7	359	51 2.54 68	9 0.74 20	9 0.39 10	3 0.08 2	0	181 2.97 78	22 0.46 12	8 0.23 6	8.0 0.13 3	0.4	0.05	--	180		
1S/11W-12C 2 S 7-13-65	--	7.7	324	43 2.15 64	10 0.82 24	8 0.35 10	2 0.05 1	0	173 2.84 83	20 0.42 12	4 0.11 3	4 0.06 2	0.4	0.03	--	199		
1S/11W-13F 1 S 7-13-65	62	7.7	444	60 2.99 64	14 1.15 25	10 0.43 9	3 0.08 2	0	186 3.05 66	38 0.79 17	23 0.65 14	8 0.13 3	0.4	0.06	--	210		
1S/11W-14M 1 S 5- 4-65	--	7.9	650	62 3.09 43	40 3.29 46	15 0.65 9	4 0.10 1	0	197 3.23 44	120 2.50 34	45 1.27 17	19 0.31 4	0.2	0.08	--	278		
																207		
																248		
																424		
																319		
																402		



TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents percent				Mineral constituents in parts per million					
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- ium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Nit- rate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	Total Hardness as CaCO <sub>3</sub>	
SAN GABRIEL VALLEY HYDRO SUBUNIT U0500																	
MAIN SAN GABRIEL HYDRO SUBAREA U0501																	
1S/11W-178 5 S 8- 9-65	69	8.3	358	39 1.95 53	10 0.82 22	21 0.91 25	1 0.03 1	0	200 3.28 88	11 0.23 6	8 0.23 6	0	--	--	--	139	
1S/11W-17G 2 S 5- 4-65	67	8.0	390	36 1.80 41	18 1.48 34	25 1.09 25	1 0.03 1	0	214 3.51 79	16 0.33 7	18 0.51 12	5 0.08 2	0.8	0.27	--	188	
1S/11W-18H 1 S 8- 9-65	68	8.2	390	43 2.15 52	14 1.15 28	19 0.83 20	1 0.03 1	0	192 3.15 78	9 0.19 5	11 0.31 8	24 0.39 10	--	--	--	242	
1S/11W-19F 2 S 7- 7-65	69	8.0	332	32 1.60 46	10 0.82 24	23 1.00 29	1 0.03 1	0	176 2.88 83	12 0.25 7	10 0.28 8	3 0.05 1	0.9	0.06	--	225	
1S/11W-20L 1 S 8- 9-65	74	8.3	390	44 2.20 53	13 1.07 26	19 0.83 20	1 0.03 1	0	205 3.36 83	13 0.27 7	10 0.28 7	10 0.16 4	--	--	--	161	
1S/11W-21G 2 S 8- 9-65	65	8.2	626	85 4.24 62	20 1.64 24	20 0.87 13	2 0.05 1	0	283 4.64 69	39 0.81 12	21 0.59 9	42 0.68 10	--	--	--	178	
1S/11W-25Q 1 S 5- 4-65	--	7.8	790	68 3.39 36	54 4.44 47	33 1.43 15	4 0.10 1	0	348 5.70 63	76 1.58 17	53 1.49 16	21 0.34 4	0.1	0.08	--	164	
1S/11W-26K 1 S 5- 4-65	66	7.9	600	64 3.19 45	27 2.22 31	36 1.57 22	4 0.10 1	0	221 3.62 52	85 1.77 26	44 1.24 18	18 0.29 4	0.2	0.14	--	294	
																368	
																560	
																392	
																480	
																392	
																271	
																387	

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per percent					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- co SiO <sub>2</sub>	T.D.S. Evap 180°C Extr 105°C Computed	Total hardness at 25°C CaCO <sub>3</sub>	
SAN GABRIEL VALLEY HYDRO SUBUNIT U05D0																		
MAIN SAN GABRIEL HYDRO SUBAREA U05D1																		
1S/11W-26L 7 S 8-10-65	68	8.1	942	108 5.39 53	24 1.97 19	61 2.65 26	5 0.13 1	0	232 3.80 37	188 3.91 38	69 1.95 19	32 0.52 5	--	--	--	601	368	
1S/11W-30C 3 S 5- 4-65	--	7.9	430	40 2.00 42	19 1.56 33	27 1.17 25	1 0.03 1	0	207 3.39 71	37 0.77 16	19 0.54 11	6 0.10 2	0.6	0.17	--	284	178	
1S/11W-30D 2 S 5- 4-65	--	7.7	390	49 2.45 53	12 0.99 22	25 1.09 24	2 0.05 1	0	208 3.41 75	29 0.60 13	17 0.48 11	4 0.06 1	0.4	0.16	--	250	172	
1S/11W-33N 7 S 5- 4-65	--	7.8	900	93 4.64 41	55 4.52 40	46 2.00 18	3 0.08 1	0	202 3.31 32	221 4.60 44	85 2.40 23	8 0.13 1	0.2	0.17	--	642	458	
1S/11W-33P 1 S 5- 4-65	--	7.7	1080	111 5.54 46	36 2.96 25	79 3.43 28	6 0.15 1	0	221 3.62 30	279 5.81 47	90 2.54 21	18 0.29 2	0.1	0.19	--	772	425	
1S/11W-36R 1 S 8-31-65	68	8.0	403	49 2.45 58	11 0.90 21	17 0.74 18	4 0.10 2	0	160 2.62 65	33 0.69 17	23 0.65 16	6 0.10 2	0.4	0.06	--	250	168	
1S/12W-11N 2 S 8-11-65	--	8.1	413	40 2.00 48	11 0.90 21	29 1.26 30	2 0.05 1	0	169 2.77 66	23 0.48 11	24 0.68 16	17.0 0.27 6	--	--	--	222	145	
1S/12W-24E 2 S 8-10-65	69	8.2	461	45 2.25 46	14 1.15 24	33 1.43 29	1 0.03 1	0	174 2.85 60	14 0.29 6	34 0.96 20	42 0.68 14	--	--	--	229	170	
																269		

TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fuo- ride F	Boron B	Sili- co SiO <sub>2</sub>	TDS Evap 180°C Evap 105°C Computed	Total hardness as CaCO <sub>3</sub>	
SAN GABRIEL VALLEY HYDRO SUBUNIT U05D0 MAIN SAN GABRIEL HYDRO SUBAREA U05D1																		
1S/12W-36A 2 S 8- 9-65	81	7.9	375	38 1.90 49	13 1.07 28	20 0.87 22	1 0.03 1	0	201 3.29 86	14 0.29 8	6 0.23 6	0	--	--	--	149		
2S/ 9W- 4K 1 S 5- 5-65	--	7.5	990	92 4.59 40	62 5.10 44	41 1.78 15	2 0.05 3	0	360 5.90 51	192 4.00 34	53 1.49 13	18 0.29 2	0.2	0.14	--	485		
2S/ 9W- 8R 3 S 5- 5-65	--	8.2	1120	117 5.84 44	61 5.02 38	53 2.30 17	3 0.08 1	0	373 6.11 45	235 4.89 36	76 2.14 16	21 0.34 3	0.1	0.28	--	543		
2S/ 9W-18E 4 S 7-28-65	68	7.5	1533	200 9.98 56	53 4.36 24	80 3.48 19	3 0.08 3	0	464 7.60 43	317 6.60 38	96 2.71 15	39 0.63 4	0.6	0.38	--	718		
2S/10W- 8E 2 S 5- 5-65	--	7.8	1090	114 5.69 43	40 3.29 25	100 4.35 33	2 0.05 3	0	340 5.57 41	217 4.52 33	114 3.21 24	18 0.29 2	0.2	0.50	--	449		
8-10-65	69	7.5	1260	123 6.14 46	41 3.37 25	90 3.91 29	2 0.05 3	0	352 5.77 41	219 4.56 33	114 3.21 23	28 0.45 3	--	--	--	476		
2S/10W-10N 1 S 8-10-65	79	7.6	1106	86 4.29 38	21 1.73 15	115 5.00 44	14 0.36 3	0	260 4.26 37	177 3.69 32	122 3.44 30	0	--	--	--	301		
2S/10W-10P 2 S 5- 5-65	--	7.5	1140	103 5.14 38	52 4.28 32	93 4.04 30	3 0.08 1	0	346 5.67 41	199 4.14 30	129 3.64 27	18 0.26 2	0.4	0.53	--	471		

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million				
				Mineral constituents in parts per million										Mineral constituents in parts per million				
Date sampled	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million				
				Calcium Co	Magne- sium Mg	Sodium No	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- co SiO <sub>2</sub>	I.D.S. Evap 105°C as CaCO <sub>3</sub>	Total Hardness as CaCO <sub>3</sub>	
L A SAN GABRIEL RIVER HYDRO UNIT U0500																		
SAN GABRIEL VALLEY HYDRO SUBUNIT U05D0																		
MAIN SAN GABRIEL HYDRO SUBAREA U05D1																		
25/10W-13H 2 S 5- 5-65	--	7.8	1280	124 6.19 41	56 4.61 31	93 4.04 27	3 0.08 1	0	341 5.59 38	236 4.91 33	138 3.89 26	30 0.48 3	0.6	0.55	--	910 849	540	
25/11W- 5A 1 S 7- 2-65	67	7.6	1071	107 5.34 49	20 1.64 15	87 3.78 35	6 0.15 1	0	160 2.62 24	267 5.56 51	91 2.57 24	8 0.13 1	0.5	0.08	--	651 665	349	
25/11W- 5A 2 S 7- 2-65	--	7.5	1080	115 5.74 52	24 1.97 18	76 3.30 30	5 0.13 1	0	176 2.88 26	268 5.58 50	92 2.59 23	6 0.10 1	0.6	0.14	--	752 673	386	
25/11W- 5B16 S 7- 2-65	--	7.4	1152	152 7.58 61	29 2.38 19	52 2.26 18	6 0.15 1	0	231 3.79 31	294 6.12 49	81 2.28 18	11 0.18 1	0.5	0.12	--	738 739	498	
25/11W- 5G 1 S 8- 9-65	64	8.3	583	79 3.94 63	15 1.23 20	24 1.04 17	3 0.08 1	0	193 3.16 51	98 2.04 33	33 0.93 15	5 0.08 1	--	--	--	352	259	
25/11W- 5N 4 S 8- 9-65	65	8.3	608	84 4.19 64	15 1.23 19	24 1.04 16	3 0.08 1	0	207 3.39 52	104 2.17 34	32 0.90 14	0	--	--	--	271	364	
25/11W- 5N 5 S 8- 9-65	64	8.2	847	114 5.69 61	21 1.73 19	40 1.74 19	4 0.10 1	0	221 3.62 39	186 3.87 42	57 1.61 17	8.0 0.13 1	--	--	--	371	539	
25/11W- 6G 2 S 8- 9-65	76	8.3	899	94 4.69 48	21 1.73 18	76 3.30 34	2 0.05 1	0	245 4.02 41	191 3.98 41	62 1.75 18	0	--	--	--	566	321	



TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million						
				Calcium Ca	Magne- sium Mg	Sodium Na	Potash K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fuo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	Total Dissolved Solids as CaCO <sub>3</sub>
Date sampled																
SAN GABRIEL VALLEY HYDRO SUBUNIT U05D0 MAIN SAN GABRIEL HYDRO SUBAREA U05D1																
2S/11W-8A 5 S 5-4-65	--	7.9	670	84 4.19 53	22 1.81 23	42 1.83 23	0.08 0.08 1	3 1	0 4.46 55	111 2.31 29	41 1.16 14	8 0.13 2	0.1	0.11	--	430 445
1N/ 9W-29C 1 S 5-6-65	--	8.1	620	71 3.54 50	24 1.97 28	33 1.43 20	0.15 0.15 2	6 2	0 2.73 4.47 62	76 1.58 22	24 0.68 9	31 0.50 7	0.4	0.06	--	430 400
1N/ 9W-29M 1 S 8-11-65	74	7.5	674	74 3.69 53	22 1.81 26	32 1.39 20	3 0.08 1	3 2	0 3.10 45	58 1.21 17	25 0.71 10	120 1.94 28	--	--	--	275 427
1N/ 9W-32G 1 S 5-5-65	68	7.5	900	62 3.09 31	63 5.18 52	39 1.70 17	2 0.05 2	2 2	0 2.97 4.87 49	115 2.39 24	47 1.33 13	86 1.39 14	0.2	0.14	--	644 560
1N/10W-31A 1 S 12-10-64	--	8.1	488	68 3.39 66	14 1.15 22	12 0.52 10	3 0.08 2	3 2	0 2.31 3.79 72	34 0.71 13	13 0.37 7	26.0 0.42 8	0.4	0.05	--	280 284
8-30-65	70	8.1	457	65 3.24 69	11 0.90 19	11 0.48 10	3 0.08 2	3 2	0 2.10 3.44 74	30 0.62 13	11 0.31 7	16 0.26 6	0.4	0.06	--	290 251
1N/10W-31M 1 S 12-10-64	--	7.7	575	81 4.04 67	17 1.40 23	12 0.52 9	4 0.10 2	4 2	0 2.54 4.16 68	33 0.69 11	18 0.51 8	47.0 0.76 12	0.4	0.04	--	330 337
8-30-65	68	8.0	429	55 2.74 61	14 1.15 26	12 0.52 12	3 0.08 2	3 2	0 2.02 3.31 74	29 0.60 13	10 0.27 6	17 0.27 6	0.3	0.05	--	252 240



**TABLE E-1**  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per million reactance value					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fuo- r- ide F	Boron B	Sili- ca SiO <sub>2</sub>	TDS Evap 180°C as Computed	Total hardness as CaCO <sub>3</sub>	
SAN GABRIEL VALLEY HYDRO SUBUNIT U05D0 MAIN SAN GABRIEL HYDRO SUBAREA U05D1																		
1N/10W-32J 2 S 12- 9-64	--	7.9	415	56 2.79 65	12 0.99 23	10 0.43 10	3 0.08 2	0	201 3.29 75	35 0.73 17	8 0.23 5	7 0.11 3	0.4	0.05	--	210	189	
8-10-65	72	8.0	411	54 2.69 61	13 1.07 24	13 0.57 13	3 0.08 2	0	206 3.38 77	35 0.73 17	7 0.20 5	5 0.08 2	--	--	--	230	188	
8-30-65	64	8.2	407	53 2.64 60	15 1.23 28	11 0.48 11	3 0.08 2	0	203 3.33 77	35 0.73 17	8 0.23 5	4 0.06 1	0.3	0.06	--	231	194	
1N/10W-34L 1 S 12- 9-64	--	7.9	496	70 3.49 67	13 1.07 21	12 0.52 10	4 0.10 2	0	218 3.57 70	28 0.58 11	13 0.37 7	38.0 0.61 12	0.4	0.04	21	323	228	
9- 2-65	67	8.0	486	64 3.19 64	14 1.15 23	13 0.57 11	3 0.08 2	0	204 3.34 66	28 0.58 11	17 0.48 10	40 0.65 13	0.4	0.02	--	260	217	
1N/10W-34N 1 S 10- 8-64	--	7.7	440	41 2.05 45	22 1.81 40	14 0.61 13	4 0.10 2	0	198 3.25 73	19 0.40 9	16 0.45 10	22.0 0.35 8	0.2	0.07	--	356	193	
12- 9-64	--	7.9	468	67 3.34 67	12 0.99 20	12 0.52 11	4 0.10 2	0	222 3.64 74	22 0.46 9	12 0.34 7	28.0 0.45 9	0.4	0.06	21	300	217	
1-19-65	--	8.2	470	55 2.74 51	23 1.89 35	15 0.65 12	3 0.08 1	0	232 3.80 72	29 0.60 11	19 0.54 10	23.0 0.37 7	0.2	0.19	--	302	232	
																281		

TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						parts per million equivalents per million reactance value						Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fucide F	Boron B	Silica SiO <sub>2</sub>	TDS Evap 180°C Evap 105°C as Computed CaCO <sub>3</sub>				
L A SAN GABRIEL RIVER HYDRO UNIT U0500																				
SAN GABRIEL VALLEY HYDRO SUBUNIT U05D0																				
MAIN SAN GABRIEL HYDRO SUBAREA U05D1																				
1N/10W-34N 1 S 3-30-65	--	7.6	540	53 2.64 54	19 1.56 32	14 0.61 12	4 0.10 2	0	222 3.64 76	15 0.31 6	18 0.51 11	22 0.35 7	0.2	0.12	--	298 254	210			
5-10-65	67	7.7	450	67 3.34 68	11 0.90 18	13 0.57 12	3 0.08 2	0	214 3.51 73	16 0.33 7	20 0.56 12	24 0.39 8	0.2	0.11	--	292 260	212			
5-26-65	68	7.5	443	58 2.89 63	13 1.07 23	12 0.52 11	4 0.10 2	0	217 3.56 78	21 0.44 10	10 0.28 6	19 0.31 7	0.3	0.08	--	250 244	198			
1N/10W-34N 2 S 10- 8-64	--	7.7	500	47 2.35 46	24 1.97 39	15 0.65 13	4 0.10 2	0	212 3.47 70	22 0.46 9	21 0.59 12	26 0.42 9	0.2	0.10	--	386 264	216			
12- 8-64	--	7.5	532	76 3.79 70	12 0.99 18	13 0.57 10	4 0.10 2	0	234 3.84 70	23 0.48 9	20 0.56 10	37 0.60 11	0.4	0.07	--	280 300	239			
1-20-65	--	8.1	480	57 2.84 53	23 1.89 35	13 0.57 11	4 0.10 2	0	215 3.52 67	31 0.65 12	20 0.56 11	32 0.52 10	0.2	0.12	--	310 286	237			
3-30-65	68	8.0	440	65 3.24 70	12 0.99 21	8 0.35 8	1 0.03 1	0	214 3.51 74	19 0.40 8	15 0.44 9	24 0.39 8	0.4	0.09	--	304 250	212			
5-10-65	68	7.7	480	69 3.44 64	15 1.23 23	14 0.61 11	3 0.08 1	0	237 3.88 72	23 0.48 9	21 0.59 11	26 0.42 8	0.2	0.11	--	296 288	234			

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million reactivity value					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlor- ide Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sulf- co SO <sub>2</sub>	TDS Evap-Reduc- ed as CaCO <sub>3</sub>	Total Hardness as CaCO <sub>3</sub>	
SAN GABRIEL VALLEY HYDRO SUBUNIT U0500																		
MAIN SAN GABRIEL HYDRO SUBAREA U0501																		
1N/10W-34N 2 S 5-26-65	68	7.6	496	70 3.49 68	12 0.99 19	12 0.52 10	4 0.10 2	0	229 3.75 76	20 0.42 8	14 0.39 6	25 0.40 8	0.4	0.06	--	280 270	224	
1N/11W-36R 1 S 12-10-64	--	8.0	443	60 2.99 66	10 0.82 18	14 0.61 13	4 0.10 2	0	187 3.06 68	32 0.67 15	19 0.24 12	15.0 0.24 5	0.4	0.05	--	230 246	191	
UPPER CANYON HYDRO SUBAREA U0503																		
1N/10W-22M 1 S 5-6-65	61	8.0	470	42 2.10 39	28 2.30 43	20 0.87 16	4 0.10 2	0	230 3.77 71	38 0.79 15	16 0.45 8	19 0.31 6	0.2	0.08	--	300 280	220	
1N/10W-23B 1 S 8-11-65	87	7.6	729	70 3.49 45	18 1.48 19	62 2.70 35	4 0.10 1	0	221 3.62 47	133 2.77 36	45 1.27 16	6.0 0.10 1	--	--	--	447	249	
1N/10W-27C 1 S 8-11-65	66	7.7	354	46 2.30 60	10 0.82 22	14 0.61 16	3 0.08 2	0	186 3.05 82	28 0.58 16	4 0.11 3	0	--	--	--	156	156	
1N/10W-27C 2 S 5-6-65	64	8.0	420	56 2.79 59	15 1.23 26	13 0.57 12	4 0.10 2	0	226 3.70 76	34 0.71 15	13 0.37 6	4 0.06 1	0.2	0.12	--	252 250	201	

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reactance value				Mineral constituents in parts per million				
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Sulfur dioxide SO <sub>2</sub>	TDS Evap. Residue as Computed CaCO <sub>3</sub>
SPADRA HYDRO SUBUNIT				L A SAN GABRIEL RIVER HYDRO UNIT U0500												
SPADRA HYDRO SUBAREA				UJ5E1												
1S/ 9W-26H 1 S 5- 5-65	68	7.8	730	32 1.60	66 5.43	29 1.26	2 0.05	0	257 4.21	120 2.60	30 1.07	34 0.55	0.2	0.11	--	352
1S/ 9W-34B 1 S 8-11-65	73	7.9	818	114 5.69	25 2.06	28 1.22	2 0.05	0	272 4.46	143 2.98	33 0.93	37.0 0.60	--	--	--	388
1S/ 9W-34F 2 F 5- 5-65	68	7.7	940	80 3.99	57 4.67	42 1.83	2 0.05	0	315 5.16	151 3.14	60 1.69	43 0.69	0.2	0.44	--	434
				38	44	17			48	29	16	6				590

TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reactance value				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlor- ide Cl	Ni- trate NO <sub>3</sub>	Flu- oride F	Bicar- bonate CO <sub>3</sub>	Sul- fate SO <sub>4</sub>	Evap. residue ppm	
ANAHEIM HYDRO SUBUNIT U05FJ																	
ANAHEIM HYDRO SUBAREA U05F1																	
3S/ 9W-32H 3 S 3- 3-65	--	7.6	1271	--	--	--	--	0	248 4.06	292 6.08	109 3.07	--	--	--	--	--	--
3S/ 9W-33H 1 S 10-13-64	--	7.6	854	--	--	--	--	0	239 3.92	115 2.39	82 2.31	--	--	--	--	--	--
3- 3-65	--	7.6	876	--	--	--	--	0	244 4.00	114 2.37	84 2.37	--	--	--	--	--	--
3S/ 9W-33K 1 S 10-13-64	66	7.6	1059	--	--	--	--	0	198 3.25	240 5.00	91 2.57	--	--	--	--	--	--
3- 3-65	68	7.5	1059	--	--	--	--	0	198 3.25	246 5.12	91 2.57	--	--	--	--	--	--
3S/ 9W-34G 1 S 10-13-64	--	7.8	861	--	--	--	--	0	251 4.11	104 2.17	85 2.40	--	--	--	--	--	--
3- 3-65	--	7.6	1070	106 5.29	22 1.61	91 3.96	4 0.10	0	188 3.08	254 5.29	93 2.62	3 0.09	0.6	0.06	20	724	355
3S/ 9W-34H 1 S 10-13-64	70	7.6	977	--	--	--	--	0	293 4.80	--	80 2.26	--	--	--	--	686	--



ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reactance value				Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Barium Ba	Selenium Se	Trace metals Total dissolved solids TDS
ANAHEIM HYDRO SUBUNIT U05F0																
ANAHEIM HYDRO SUBAREA U05F1																
35/ 9W-34H 1 S 3- 3-65	67	7.6	933	--	--	--	--	0	270 4.43	--	74 2.09	--	--	--	--	--
35/ 9W-34M 1 S 10-13-64	--	7.5	1240	--	--	--	--	0	220 3.61	295 6.14	102 2.88	--	--	--	--	--
3- 3-65	--	7.6	1232	--	--	--	--	0	209 3.43	274 6.12	101 2.85	--	--	--	--	--
35/11W-32F 1 S 6-22-65	--	7.7	1080	179 6.44	23 1.89	86 2.87	4 0.10	0	311 5.10	140 2.91	77 2.74	27 0.44	0.4	0.10	--	667 639
35/10W-36H 1 S 3-17-65	65	7.8	678	--	--	--	--	0	235 3.85	75 1.56	51 1.44	--	--	--	--	--
45/ 9W- 4M 2 S 3-23-65	68	7.2	1210	104 5.19	30 2.47	104 4.52	5 0.13	0	199 3.46	292 6.08	114 3.21	7 0.15	0.5	0.10	15	834 771
45/ 9W- 6G 2 S 3- 3-65	--	7.6	1117	--	--	--	--	0	176 2.88	278 5.79	96 2.71	--	--	--	--	--
45/10W- 1B 1 S 3-17-65	68	7.6	1099	--	--	--	--	0	144 2.36	--	89 2.51	--	--	--	--	--

TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million reactance value					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Ful- vate F	Beren- ium B	Sul- fate SO <sub>2</sub>	IO <sub>3</sub> Equiv- alent IO <sub>3</sub>	Total Anions Eqv- alent Total	
ANAHEIM HYDRO SUBUNIT U05F0																		
ANAHEIM HYDRO SUBAREA U05F1																		
4S/10W- 1F 1 S 10-22-64	--	7.7	1129	121 6.04 51	25 2.06 18	82 3.57 30	0.10 1	0	182 2.98 25	266 5.54 47	98 2.76 24	26.0 0.42 4	0.6	0.06	23	793 735	405	
3- 3-65	67	7.6	1123	--	--	--	--	0	173 2.84	268 5.56	95 2.68	--	--	--	--	--	--	
4S/10W- 3P 1 S 11-27-64	--	7.7	993	109 5.44 53	25 2.06 20	62 2.70 26	0.13 1	0	251 4.11 40	168 3.50 34	85 2.40 24	12 0.19 2	0.4	0.06	--	628 590	375	
5-18-65	--	7.7	1016	106 5.29 50	30 2.47 23	62 2.70 25	0.13 1	0	246 4.03 39	181 3.77 36	84 2.57 23	13 0.21 2	0.5	0.09	--	716 602	388	
4S/10W- 3P 2 S 11-27-64	--	7.5	1029	117 5.84 55	22 1.81 55	64 2.78 26	0.13 1	0	237 3.88 37	169 3.93 38	87 2.45 23	12 0.19 2	0.4	0.07	--	630 613	383	
4-20-65	--	7.6	1030	116 5.79 55	22 1.81 17	64 2.78 26	0.13 1	0	220 3.61 35	200 4.16 40	86 2.43 23	9 0.15 1	0.5	0.09	--	678 611	380	
4S/10W- 4R 1 S 4-20-65	--	7.5	1070	124 6.19 56	23 1.89 17	64 2.78 25	0.13 1	0	239 3.92 36	202 4.21 39	87 2.45 23	18 0.29 3	0.6	0.08	--	701 641	404	
4S/10W- 4R 5 S 11-27-64	--	7.8	1050	127 6.34 59	21 1.73 16	60 2.61 24	0.13 1	0	260 4.26 39	178 3.71 34	92 2.59 24	19 0.31 3	0.5	0.07	--	660 630	404	

TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million reactance value					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fuo- ride F	Boro- B	Sili- ca SiO <sub>2</sub>	Total Equiv. Weight as CaCO <sub>3</sub>		
L A SAN GABRIEL RIVER HYDRO UNIT U0500																		
ANAHEIM HYDRO SUBUNIT U05F0				U05F1														
ANAHEIM HYDRO SUBAREA																		
4S/10W-4R 5 S 5-21-65	--	7.1	1040	120 5.99 57	24 1.97 19	2.48 23	57 0.13 1	0	263 4.31 41	159 3.51 32	87 2.45 23	24 0.39 4	0.6	0.08	--	699 606	396	
4S/11W-4R 6 S 3-24-65	--	7.4	1040	122 6.09 55	26 2.14 19	2.70 24	5 0.13 1	0	249 4.06 38	188 3.51 36	93 2.62 24	15 0.21 2	0.6	0.13	--	675 652	411	
4S/10W-6P 1 S 6-16-65	--	7.8	958	65 3.24 55	13 1.07 18	1.48 25	3 0.08 1	0	229 3.75 63	61 1.27 21	28 0.79 15	6 0.10 2	0.6	0.07	--	342 323	216	
4S/10W-70 2 S 10-22-64	--	7.9	660	--	--	--	--	0	253 4.15	84 1.75	36 1.02	--	--	--	--	--	--	
3-3-65	--	7.1	673	--	--	--	--	0	251 4.11	62 1.71	33 0.93	--	--	--	--	--	--	
4S/11W-18C 2 S 7-13-65	--	7.1	858	100 4.99 56	21 1.73 20	47 2.04 23	4 0.10 1	0	253 4.15 47	114 2.37 27	69 1.95 22	22 0.35 4	0.6	0.06	--	564 502	336	
4S/11W-8B 2 S 6-16-65	--	7.9	478	40 2.00 43	10 0.82 17	42 1.83 39	2 0.05 1	0	222 3.64 76	36 0.75 16	15 0.27 8	1 0.02	0.6	0.10	--	275 254	141	
4S/11W-8P 2 S 1-19-65	--	7.2	482	47 3.35 49	9 0.74 15	39 1.70 35	2 0.05 1	0	222 3.64 77	38 0.79 17	11 0.31 7	0	0.5	0.08	--	235 256	151	

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in						parts per million equivalents per million reactance value				Mineral constituents in parts per million					
				Calcium	Magne- sium	Sodium	Potas- sium	Carbon- ate	Bicar- bonate	Sulfate	Chlor- ide	Ni- trate	Fluo- ride	Boron	Sili- ca	TDS Evap 180°C Evap 105°C Computed			
Date sampled				Co	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>				
ANAHEIM HYDRO SUBUNIT U05F0																			
ANAHEIM HYDRO SUBAREA U05F1																			
4S/11W-8P 2 S 6-22-65	--	7.9	476	47 2.35 48	9 0.74 15	40 1.74 36	0.05 0.05 1	0	226 3.70 77	30 0.75 16	13 0.37 8	0	0.4	0.06	--	246 155			
4S/11W-9A 1 S 6-10-65	--	7.9	450	46 2.30 48	11 0.50 19	35 1.52 32	2 0.05 1	0	229 3.75 79	31 0.55 14	11 0.31 7	1 0.02	0.5	0.06	--	268 160			
4S/11W-11M 1 S 12-16-64	--	7.5	579	53 3.14 52	15 1.23 20	30 1.57 26	3 0.08 1	0	233 3.82 64	65 1.35 23	26 0.73 12	4 0.06 1	0.6	0.06	--	336 219			
7-13-65	--	7.8	582	57 2.84 48	18 1.48 25	35 1.52 26	3 0.09 1	0	233 3.82 64	61 1.27 21	26 0.79 13	5.5 0.09 2	0.6	0.05	--	347 216			
4S/11W-12F 1 S 6-16-65	--	7.9	756	88 4.39 54	20 1.64 20	47 2.04 25	4 0.10 1	0	271 4.44 54	120 2.50 30	45 1.27 15	1 0.02	0.6	0.08	--	460 302			
4S/11W-12F 2 S 6-22-65	--	7.5	748	90 4.49 60	14 1.15 15	40 1.74 23	4 0.10 1	0	243 3.96 54	93 1.54 27	43 1.21 17	12 0.19 3	0.5	0.06	--	414 282			
4S/11W-12R 1 S 2-16-65	--	7.5	890	109 5.44 57	21 1.73 18	52 2.26 24	5 0.13 1	0	272 4.46 49	126 2.62 29	59 1.66 18	20 0.32 4	0.6	0.08	--	597 359			
6-16-65	--	7.8	866	107 5.34 58	22 1.81 20	46 2.00 22	4 0.10 1	0	268 4.39 48	125 2.60 28	62 1.75 19	26 0.42 5	0.6	0.09	--	612 358			
																524			

TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent reactance value					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	% sulfate SO <sub>4</sub>	% chloride Cl	% nitrate NO <sub>3</sub>	% sulfide S	% borate B	% silica SiO <sub>2</sub>	Total Evap 180°C hardness Extr 260°C Total Dissolved Solids		
ANAHEIM HYDRO SUBUNIT																		
ANAHEIM HYDRO SUBAREA																		
U05FJ																		
U0500																		
L A SAN GABRIEL RIVER HYDRO UNIT U0500																		
4S/11W-12R 1 S 8-30-65	--	7.8	872	109 544 60	18 148 16	46 200 22	5 0.13 1	0	268 436 48	126 262 29	62 1.75 17	21 0.34 4	0.6 0.08 --	541 518 346				
4S/11W-12R 6 S 10-26-64	--	7.6	863	92 459 52	27 181 21	52 226 26	4 0.13 1	0	232 380 43	148 308 32	52 1.55 18	22 0.40 5	0.7 0.09 --	543 513 320				
5-17-65	--	7.6	872	99 494 54	21 173 19	54 235 26	4 0.10 1	0	244 400 45	151 314 32	42 1.36 15	22 0.40 4	0.8 0.08 --	579 524 334				
4S/11W-13A 3 S 8-30-65	--	7.6	851	79 474 54	17 156 18	56 243 28	4 0.10 1	0	240 392 44	168 353 39	52 1.47 16	0.6 0.01 0	0.7 0.04 --	506 513 315				
4S/11W-15M 1 S 6-16-65	--	8.2	425	47 235 51	1 382 18	31 135 29	3 0.08 2	0	217 326 79	32 0.69 15	10 0.20 6	0 0 0	0.6 0.06 --	230 241 194				
4S/11W-16C 1 S 11-25-64	--	7.8	478	51 254 51	11 870 18	35 152 30	2 0.05 1	0	234 384 77	36 0.75 13	14 0.39 6	0 0 0	0.5 0.03 --	235 241 174				
4S/11W-16F 1 S 6-16-65	--	8.0	505	57 284 53	12 899 18	35 152 26	2 0.05 1	0	256 436 81	30 0.62 12	13 0.37 7	1 0.02 0	0.5 0.03 --	210 231 192				
4S/11W-16S 1 S 8-30-65	--	7.9	494	48 240 49	13 107 22	31 135 28	3 0.08 2	0	224 357 73	42 0.74 19	14 0.39 8	0 0 0	0.7 0.03 --	260 264 174				



TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent				Mineral constituents in parts per million				Total Evap. Resid. as CaCl <sub>2</sub>
				Calcium Mg	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	
ANAHEIM HYDRO SUBUNIT U05FC																
ANAHEIM HYDRO SUBAREA U05F1																
4S/11W-16J 4 S 12-15-64	--	7.6	649	76 3.79 55	16 1.32 19	39 1.70 25	3 0.08 1	0	270 4.43 65	73 1.52 22	32 0.90 13	0	0.6	0.04	--	379 256
5-17-65	--	7.8	647	80 3.99 58	13 1.07 16	39 1.70 25	3 0.08 1	0	273 4.47 67	65 1.35 20	30 0.85 13	0	0.7	0.05	--	372 253 365
4S/11W-19J 3 S 3-23-65	--	7.6	470	46 2.30 50	5 0.41 9	42 1.83 40	2 0.05 1	0	224 3.67 75	39 0.81 17	14 0.59 8	0	0.9	0.04	--	264 136
6-16-65	68	8.0	444	42 2.10 46	10 0.82 18	36 1.57 35	2 0.05 1	0	215 3.52 75	38 0.79 17	13 0.37 8	1 0.02	0.5	0.05	--	280 146
7-13-65	--	7.6	476	44 2.20 47	9 0.74 16	40 1.74 37	2 0.05 1	0	217 3.56 73	42 0.87 18	15 0.42 9	0	0.5	0.04	--	278 147
4S/11W-19Q 2 S 10-26-64	--	7.5	450	42 2.10 46	9 0.74 16	38 1.65 36	2 0.05 1	0	209 3.43 74	37 0.77 17	16 0.45 10	0	0.3	0.06	--	259 142
5-17-65	--	7.8	454	43 2.15 47	9 0.66 14	39 1.70 37	2 0.05 1	0	212 3.47 77	36 0.75 17	11 0.31 7	0	0.5	0.05	--	273 141
4S/11W-20R 2 S 4-20-65	--	7.7	511	53 2.64 50	12 0.99 19	36 1.57 30	3 0.08 2	0	226 3.70 73	49 1.02 20	13 0.37 7	0	0.6	0.06	--	300 182 278

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million reactance value					Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	Total Dissolved Solids	Total Dissolved Solids	Total Dissolved Solids
Date sampled				Ca	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>	mg/l	mg/l	mg/l
ANAHEIM HYDRO SUBUNIT U05FV																		
ANAHEIM HYDRO SUBAREA U05F1																		
45/11W-21L 1 S 2-16-65	--	7.7	800	94 4.69 57	19 1.56 19	46 2.00 24	0.05 1	2	0	254 4.16 51	113 2.35 29	55 1.55 19	0.6	0.05	--	498 456	315	315
7-13-65	--	7.3	805	98 4.89 56	19 1.56 19	44 1.91 23	0.05 1	2	0	251 4.11 49	118 2.46 29	62 1.75 21	0.6	0.05	--	538 468	323	323
45/12W-36N 6 S 7- 9-65	--	7.8	33100	1080 53.89 13	703 65.22 15	7040 306.15 72	58 1.48	0	0	181 2.97 1	1940 40.39 10	13500 386.70 90	--	--	--	24600 24500	5960	5960
45/12W-36N 7 S 1- 6-65	73	8.2	431	3 0.15 4	8 0.66 16	77 3.35 80	1 0.03 1	0	0	168 2.75 67	41 0.85 21	18 0.51 12	--	--	--	316 281	41	41
7- 9-65	--	8.3	437	15 0.75 17	6 0.49 11	72 3.13 71	1 0.03 1	0	0	159 2.61 62	42 0.76 21	27 0.76 18	--	--	--	352 241	50	50
55/12W- 1A 1 S 3- 4-65	--	8.0	325	8 0.40	4 0.33	62 2.70	1 0.03	0	0	162 2.66	12 0.25	12 0.34	--	--	11	204	37	37
55/12W- 1G 2 S 7-15-65	--	8.4	421	39 1.95 42	8 0.66 14	46 2.00 43	3 0.08 2	0	0	202 3.31 73	38 0.79 17	16 0.45 10	--	--	--	249	131	131
55/12W- 1G 3 S 7-14-65	--	8.4	378	19 0.95 25	2 0.16 4	62 2.70 70	2 0.05 1	0	0	155 2.54 66	39 0.81 21	17 0.48 13	--	--	--	217	58	58

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					Mineral constituents in parts per million								
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	TDS Exposed TDS Exposed TDS Exposed TDS Exposed	
L A SAN GABRIEL RIVER HYDRO UNIT U0500																	
ANAHEIM HYDRO SUBUNIT U05F0																	
ANAHEIM HYDRO SUBAREA U05F1																	
5S/12W-11J 2 S 10-21-64	--	8.6	356	8 0.40 11	1 0.08 2	74 3.22 86	1 0.03 1	0 0.03 1	0 3.36 88	0 0.03 1	16 0.45 12	0.0 0.02 1	--	--	--	201	24
5S/12W-11J 3 S 10-21-64	--	8.6	752	25 1.25 17	4 0.33 4	133 5.78 78	2 0.05 1	0 0.03 1	0 4.39 59	0 0.03 1	106 2.97 40	4.0 0.06 1	--	--	--	406	79
5S/12W-11P 1 S 10-14-64	--	8.5	5289	75 3.74 12	31 2.55 8	594 25.03 60	7 0.18 1	0 0.03 1	0 9.44 29	40 0.83 3	795 22.42 69	0.0 0.02 1	--	--	--	1825	315
5S/12W-12C 1 S 3-4-65	--	8.1	333	9 0.45	4 0.33	64 2.78	1 0.03	0 0.03	0 1.63 2.67	13 0.27	14 0.39	--	--	--	12	195	39
6-16-65	--	8.1	317	7 0.35 11	0 0.08 2	67 2.91 88	1 0.03 1	0 0.03 1	0 1.61 2.64 82	12 0.25 8	11 0.31 10	1 0.02 1	0.6	0.06	--	180	18
5S/12W-12F 2 S 10-23-64	--	8.8	406	9 0.45 9	1 0.08 2	97 4.22 88	2 0.05 1	0 0.03 1	0 2.38 3.90 77	0 0.03 1	42 1.18 23	0 0.02 1	--	--	--	268	27
LA HABRA HYDRO SUBAREA U05F2																	
3S/10W-4D 1 S 4-30-65	--	7.5	1037	90 4.49 42	38 3.13 29	68 2.96 28	5 0.13 1	0 0.03 1	0 3.15 5.16 47	106 3.91 36	66 1.86 17	0 0.02 1	0.7	0.08	34	675	381
																645	

TABLE E-1

ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents percent reactance value				Mineral constituents in parts per million					
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Borax B	Silica SiO <sub>2</sub>	Total Hardness as CaCO <sub>3</sub>	
ANAHEIM HYDRO SUBUNIT U05F0																	
LA HABRA HYDRO SUBAREA U05F2																	
3S/10W-4D 2 S 4-30-65	60	7.5	1588	--	--	--	--	0	352 5.77	--	115 3.24	0	--	--	--	--	--
3S/10W-7H 3 S 4-30-65	--	7.2	1680	175 8.73	35 2.88	96 4.17	0.05	0	287 4.70	82 1.71	306 8.63	75 1.18	0.4	0.08	57	1090	981
3S/10W-9H 1 S 4-30-65	--	7.4	1059	--	--	--	--	0	331 5.43	--	51 1.44	105 1.67	--	--	--	970	--
3S/10W-10M 1 S 4-30-65	--	7.7	908	--	--	--	--	0	252 4.13	--	106 2.99	19 0.31	--	--	--	--	--
3S/10W-15A 1 S 4-30-65	72	7.2	1529	124 6.19	55 4.52	118 5.13	0.13	0	289 4.74	292 6.08	155 4.37	52 0.84	0.3	0.08	36	1074	981
YORBA LINDA HYDRO SUBAREA U05F3																	
3S/ 9W-2P 1 S 3-17-65	98	8.1	6556	--	--	--	--	237 7.90	2679 43.91	--	931 26.25	--	--	--	--	--	--
3S/ 9W-19B 2 S 3-23-65	--	7.7	1240	--	--	--	--	0	441 7.23	--	116 3.33	37 0.60	--	--	--	--	--

TABLE E-1  
ANALYSES OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per percent			Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	T.D.S. Evaporitic hardness Evaporitic hardness Computed
ANAHEIM HYDRO SUBUNIT U05F0																
YORBA LINDA HYDRO SUBAREA U05F3																
L A SAN GABRIEL RIVER HYDRO UNIT U0500																
3S/ 9W-21D 1 S 4-14-65	--	7.6	1037	--	--	--	--	--	0	432 7.08	--	66 1.86	--	--	--	--
3S/ 9W-21D 2 S 4-14-65	--	7.7	1048	--	--	--	--	--	0	433 7.10	--	60 1.69	--	--	--	--
3S/ 9W-21M 2 S 4-14-65	--	8.0	924	--	--	--	--	--	2 0.07	377 6.18	--	71 2.00	--	--	--	--
3S/ 9W-28L 2 S 4-14-65	--	7.3	1303	--	--	--	--	--	0	326 5.34	--	264 7.44	--	--	--	--



TABLE E-1  
ANALYSES OF GROUND WATER  
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reactance value				Mineral constituents in parts per million							
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	Total D.S. Evap 180°C Evap 105°C as hardness Computed CaCO <sub>3</sub>			
AMARGOSA HYDRO SUBUNIT																			
AMARGOSA HYDRO SUBAREA				W09D0				AMARGOSA HYDRO UNIT										W0900	
				W09D2															
20N/ 7E-33L 1 S	105	8.7	3500	20	10	920	2	73	499	591	645	0	1.6	8.10	--	2476	91		
6- 6-65				1.00	0.82	40.00	0.05	2.43	8.18	12.30	18.19								
				2	2	96		6	20	30	44					2516			

**TABLE E-1**  
ANALYSES OF GROUND WATER  
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million					Mineral constituents in parts per million								
				Calcium	Magne- sium	Sodium	Potas- sium	Carbon- ate	Bicar- bonate	Sulfate	Chlo- ride	Ni- tre	Fluo- ride	Boron	Sili- ca	TDS	Total hardness as CaCO <sub>3</sub>
Date sampled				Ca	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>	Computed	Collected
ANTELOPE HYDRO SUBUNIT																	
CHAFFEE HYDRO SUBAREA																	
W26A0																	
W26A1																	
ANTELOPE HYDRO UNIT																	
W2600																	
11N/12W-26J 2 S 6- 9-65	74	7.5	333	22 1.10 32	7 0.58 17	40 1.74 50	2 0.05 1	0	139 2.28 68	37 0.77 23	10 0.28 8	2 0.03 1	0.3	0.06	--	230 189	84
11N/12W-32E 1 S 6-23-65	--	7.8	501	35 1.75 35	9 0.74 15	55 2.39 48	2 0.05 1	0	107 1.75 35	133 2.77 56	15 0.42 9	0	0.5	0.09	--	300 302	125
GLOSTER HYDRO SUBAREA																	
10N/12W-19D 1 S 6- 3-65	--	8.0	400	36 1.80 41	5 0.41 9	50 2.17 49	2 0.05 1	0	136 2.23 51	67 1.39 32	26 0.73 17	4 0.06 1	0.2	0.11	--	252 257	111
10N/12W-20C 1 S 6- 3-65	72	7.5	401	33 1.65 41	4 0.33 8	45 1.96 49	2 0.05 1	0	129 2.11 52	69 1.44 35	17 0.48 12	2 0.03 1	0.3	0.10	--	260 236	99
10N/12W-20C 4 S 6- 3-65	74	7.5	404	31 1.55 38	7 0.58 14	43 1.87 46	2 0.05 1	0	132 2.16 53	68 1.42 35	17 0.48 12	3 0.05 1	0.3	0.10	--	270 236	107
10N/12W-21P 1 S 6- 3-65	--	7.9	380	34 1.70 42	7 0.58 14	41 1.78 44	1 0.03 1	0	122 2.00 49	70 1.46 36	19 0.54 13	3 0.05 1	0.4	0.18	--	236 235	114
10N/13W-24C 2 S 6- 9-65	--	7.7	380	28 1.40 35	5 0.41 10	49 2.13 54	1 0.03 1	0	112 1.84 45	68 1.42 35	27 0.76 19	4 0.06 1	0.2	0.14	--	204 237	91

TABLE E-1  
ANALYSES OF GROUND WATER  
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million				Mineral constituents in parts per million					
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Silica SiO <sub>2</sub>	Total dissolved solids Computed		
ANTELOPE HYDRO SUBUNIT W26A0																	
WILLOW SPRINGS HYDRO SUBAREA W26A3																	
9N/13W-5M 1 S 6- 4-65	76	8.0	430	23 1.15 26	4 0.33 7	67 2.91 66	0.05 1	2 0	124 2.03 46	81 1.69 39	20 0.56 13	6 0.10 2	0.4	0.16	--	272 74	
9N/13W-7R 4 S 6- 4-65	--	7.7	489	41 2.05 41	6 0.49 10	55 2.39 48	0.05 1	2 0	137 2.25 45	99 2.06 41	22 0.62 12	5 0.08 2	0.4	0.06	--	305 127	
10N/13W-18P 1 S 6- 9-65	--	8.2	560	60 2.99 46	18 1.48 23	45 1.96 30	2 0.05 1	0 0	289 4.74 72	56 1.17 18	20 0.56 9	5 0.08 1	0.2	0.23	--	360 224	
10N/14W-36A 1 S 6- 4-65	79	7.9	760	62 3.09 40	10 0.82 11	85 3.70 48	3 0.08 1	0 0	104 1.70 22	252 5.25 67	27 0.76 10	8 0.13 2	0.4	0.09	--	506 196	
NEENACH HYDRO SUBAREA W26A4																	
8N/15W-1E 1 S 6- 4-65	78	7.9	410	45 2.25 47	12 0.99 21	34 1.48 31	2 0.05 1	0 0	203 3.33 72	28 0.58 13	19 0.54 12	11 0.18 4	0.2	0.14	--	254 162	
8N/15W-10P 1 S 6- 2-65	--	8.1	400	32 1.60 39	9 0.74 18	40 1.74 42	2 0.05 1	0 0	160 2.62 65	27 0.56 14	20 0.56 14	20 0.32 8	0.2	0.12	--	268 117	
8N/15W-24B 2 S 6- 8-65	--	8.0	400	40 2.00 49	6 0.49 12	36 1.57 38	2 0.05 1	0 0	173 2.84 70	17 0.35 9	16 0.45 11	25 0.40 10	0.5	0.10	--	245 128	

TABLE E-1

ANALYSES OF GROUND WATER  
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per million reactance value					Mineral constituents in parts per million				
				Calcium	Magne- sium	Sodium	Potas- sium	Carbon- ate	Bicar- bonate	Sulfate	Chlo- ride	Ni- trate	Fluo- ride	Boron	Sili- ca	Total Evap 180°C hardness as CaCO <sub>3</sub>		
Date sampled				Co	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>	Computed		
ANTELOPE HYDRO SUBUNIT																		
NEENACH HYDRO SUBAREA																		
W26A0																		
W26A4																		
8N/16W- 5C 1 S 6- 2-65	--	8.0	440	35 1.75 35	15 1.23 25	45 1.96 39	1 0.03 1	0	207 3.39 69	38 0.79 16	17 0.48 10	15 0.24 5	0.2	0.38	--	280 268	149	
8N/16W- 5M 1 S 6- 2-65	--	8.0	520	24 1.20 21	32 2.63 45	45 1.96 34	2 0.05 1	0	231 3.79 64	67 1.39 23	20 0.56 9	11 0.18 3	0.2	0.38	--	332 315	192	
8N/16W- 6M 1 S 6- 2-65	--	8.0	550	48 2.40 38	21 1.73 27	51 2.22 35	2 0.05 1	0	220 3.61 58	75 1.56 25	25 0.71 11	19 0.31 5	0.6	0.90	--	326 351	207	
8N/16W-14L 1 S 6- 8-65	--	7.3	345	13 0.65 18	3 0.25 7	59 2.57 73	2 0.05 1	0	140 2.29 66	30 0.62 18	11 0.31 9	16 0.26 7	0.9	0.14	--	238 204	45	
8N/16W-18H 1 S 6- 2-65	--	8.2	410	18 0.90 19	4 0.33 7	78 3.39 73	1 0.03 1	0	214 3.51 78	23 0.48 11	11 0.31 7	11 0.18 4	1.0	0.27	--	284 252	62	
9N/14W-21D 1 S 6- 4-65	78	7.9	440	36 1.80 38	13 1.07 22	43 1.87 39	2 0.05 1	0	189 3.10 67	38 0.79 17	22 0.62 13	8 0.13 3	0.2	0.30	--	254 255	144	
9N/14W-30K 1 S 6- 4-65	78	7.9	310	24 1.20 37	3 0.25 8	41 1.78 54	2 0.05 2	0	135 2.21 70	19 0.40 13	13 0.37 12	12 0.19 6	0.2	0.08	--	206 181	73	
9N/14W-32D 1 S 6- 8-65	--	7.8	346	34 1.70 47	6 0.49 14	32 1.39 39	1 0.03 1	0	157 2.57 73	17 0.35 10	15 0.42 12	12 0.19 5	0.2	0.02	--	208 194	110	

TABLE E-1

ANALYSES OF GROUND WATER  
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	Total hardness as CaCO <sub>3</sub>	
ANTELOPE HYDRO SUBUNIT																	
NEENACH HYDRO SUBAREA				W26A0										W2600			
				W26A4													
9N/17W-32K 1 S 10- 5-64	72	7.6	300	25 1.25 40	9 0.74 24	25 1.09 35	2 0.05 2	0	161 2.64 85	8 0.17 6	10 0.28 9	0.0	0.1	0.25	--	229 158	100
9N/18W-23B 1 S 10- 5-64	--	8.2	460	57 2.84 56	24 1.97 39	5 0.22 4	1 0.03 1	0	280 4.59 89	7 0.15 3	9 0.25 5	12.0 0.19 4	0.1	0.11	--	262 253	241
LANCASTER VALLEY HYDRO SUBAREA				W26A5													
6N/10W- 5H 1 S 6- 8-65	--	7.7	381	44 2.20 54	13 1.07 26	17 0.74 18	4 0.10 2	0	188 3.08 74	44 0.92 22	5 0.14 3	1 0.02	0.3	0.06	--	240 221	164
6N/11W- 3P 1 S 6- 8-65	63	7.6	250	28 1.40 55	6 0.49 19	14 0.61 24	2 0.05 2	0	117 1.92 76	19 0.40 16	6 0.17 7	3 0.05 2	0.2	0.02	--	142 136	95
6N/11W- 6G 2 S 2-14-65	70	7.8	330	21 1.05 31	4 0.33 10	46 2.00 59	1 0.03 1	0	136 2.23 68	13 0.27 8	27 0.76 23	0.0	0.6	0.17	--	184 180	69
6N/11W-21N 1 S 6- 4-65	--	8.1	420	36 1.80 39	18 1.48 32	30 1.30 28	3 0.08 2	0	179 2.93 61	35 0.73 15	34 0.96 20	11 0.18 4	0.1	0.05	--	272 255	164
6N/11W-31A 1 S 6-26-65	--	8.0	284	29 1.45 49	6 0.49 17	22 0.96 33	1 0.03 1	0	142 2.33 79	19 0.40 14	7 0.20 7	2 0.03 1	0.2	0.01	--	153 156	97



TABLE E-1  
ANALYSES OF GROUND WATER  
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million				Mineral constituents in parts per million					Total hardness as CaCO <sub>3</sub>
				Calcium Co	Magne-sium Mg	Sodium Na	Potas-sium K	Carbon-ate CO <sub>3</sub>	Bicar-bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlor-ide Cl	Ni-trate NO <sub>3</sub>	Fluo-ride F	Boron B	Sili-ca SiO <sub>2</sub>	TDS Evap 180°C as Computed	
ANTELOPE HYDRO SUBUNIT																	
LANCASTER VALLEY HYDRO SUBAREA																	
W26A0																	
W26A5																	
ANTELOPE HYDRO UNIT																	
W2600																	
7N/ 9W-30F 1 S 6-10-65	--	8.0	420	37 1.85 40	10 0.82 18	42 1.83 40	3 0.08 2	0	161 2.64 57	77 1.60 35	11 0.31 7	3 0.05 1	0.4	0.12	--	268 263	134
7N/10W- 2H 1 S 6-10-65	73	8.1	410	32 1.60 36	10 0.82 18	45 1.96 44	3 0.08 2	--	127 2.08 48	89 1.85 42	14 0.39 9	3 0.05 1	0.2	0.23	--	262 259	121
7N/10W- 6R 1 S 6-10-65	--	8.0	315	31 1.55 47	2 0.16 5	36 1.57 47	2 0.05 2	0	142 2.33 71	40 0.83 25	5 0.14 4	0	0.2	0.11	--	194 186	86
7N/10W-29B 1 S 6-10-65	68	8.0	470	56 2.79 50	23 1.89 34	18 0.78 14	3 0.08 1	0	184 3.02 56	83 1.73 32	22 0.62 11	3 0.05 1	0.2	0.14	--	330 299	234
7N/11W- 4P 1 S 6- 4-65	--	8.3	300	33 1.65 53	6 0.49 16	21 0.91 29	2 0.05 2	3 0.10 3	123 2.02 65	27 0.56 18	13 0.37 12	4 0.06 2	0.1	0.04	--	184 170	107
7N/11W- 6D 1 S 6- 4-65	--	8.2	230	25 1.25 50	4 0.33 13	20 0.87 35	1 0.03 1	0	118 1.93 79	14 0.29 12	7 0.20 8	2 0.03 1	0.1	0.06	--	154 131	79
7N/11W-11F 1 S 6- 4-65	71	7.6	420	49 2.45 55	7 0.58 13	32 1.39 31	2 0.05 1	0	126 2.07 48	73 1.52 35	25 0.71 16	2 0.03 1	0.2	0.10	--	270 252	152
7N/11W-20F 1 S 6- 4-65	--	8.0	270	31 1.55 54	5 0.41 14	20 0.87 30	1 0.03 1	0	111 1.82 63	28 0.58 20	17 0.48 16	2 0.03 1	0.1	0.02	--	186 159	98

**TABLE E-1**  
ANALYSES OF GROUND WATER  
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Silica SiO <sub>2</sub>	Total Dissolved Solids as CaCl <sub>2</sub>	
ANTELOPE HYDRO SUBUNIT																	
LANCASTER VALLEY HYDRO SUBAREA																	
W26AO																	
W26A5																	
ANTELOPE HYDRO UNIT																	
W2600																	
7N/11W-27G 1 S 6-10-65	65	8.2	210	26 1.30 53	1 0.08 3	23 1.00 41	2 0.05 2	0	125 2.05 83	10 0.21 9	5 0.14 6	4 0.06 2	0.2	0.07	--	124 133	69
7N/11W-33N 1 S 6- 4-65	68	8.0	260	33 1.65 59	3 0.25 9	20 0.87 31	2 0.05 2	0	127 2.08 72	23 0.48 17	11 0.31 11	2 0.03 1	0.2	0.05	--	154 157	95
7N/12W-14J 1 S 6-10-65	74	8.0	220	19 0.95 37	1 0.08 3	34 1.48 58	1 0.03 1	0	122 2.00 80	14 0.29 12	6 0.17 7	2 0.03 1	0.2	0.09	--	150 137	52
7N/13W-11D 2 S 6- 2-65	--	7.6	891	79 3.94 44	16 1.32 15	82 3.57 40	1 0.03 1	0	227 3.72 41	75 1.56 17	116 3.27 36	26 0.42 5	0.5	0.36	--	555 507	263
7N/13W-17N 1 S 6- 8-65	72	7.7	429	41 2.05 47	10 0.82 19	34 1.48 34	1 0.03 1	0	168 2.75 64	24 0.50 12	15 0.42 10	40 0.65 15	0.3	0.02	--	273 248	144
7N/13W-27E 1 S 6- 8-65	73	8.0	407	37 1.85 45	5 0.41 10	41 1.78 44	2 0.05 1	0	159 2.61 64	27 0.56 14	20 0.56 14	22 0.35 9	0.5	0.08	--	250 233	113
7N/13W-35E 1 S 6- 2-65	75	7.8	623	33 1.65 28	2 0.16 3	95 4.13 69	2 0.05 1	0	139 2.28 38	75 1.56 26	63 1.78 29	26 0.42 7	0.6	0.10	--	385 365	91
7N/14W- 10 1 S 6- 2-65	75	7.6	376	37 1.85 49	6 0.49 13	32 1.39 37	2 0.05 1	0	154 2.52 66	22 0.46 12	16 0.45 12	25 0.40 10	0.4	0.06	--	255 216	117

TABLE E-1

ANTELOPE HYDRO UNIT W2600

TABLE E-1  
ANALYSES OF GROUND WATER  
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent reactivity value					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	TDS Evap 100°C Evap 105°C Total CaCO <sub>3</sub>		
ANTELOPE HYDRO SUBUNIT																		
LANCASTER VALLEY HYDRO SUBAREA																		
W26A0																		
W26A5																		
W2600																		
8N/13W-7B 1 S 6- 3-65	77	7.6	600	58 2.89 49 10	7 0.58 49 10	54 2.35 40 1	3 0.08	0	151 2.47 42	65 1.35 23	67 1.89 32	15 0.24 4	0.4	0.06	--	370 344	174	
8N/13W-20K 1 S 6- 3-65	65	7.5	495	48 2.40 47	7 0.58 11	48 2.09 41	2 0.05 1	0	185 3.03 60	38 0.79 16	37 1.04 21	12 0.19 4	0.5	0.50	--	310 284	149	
8N/13W-22K 2 S 6- 4-65	76	7.6	497	33 1.65 35	4 0.33 7	63 2.74 57	2 0.05 1	0	142 2.33 48	51 1.06 22	46 1.30 27	10 0.16 3	0.7	0.50	--	315 280	99	
8N/13W-32N 2 S 6- 8-65	71	8.0	542	49 2.45 44	9 0.74 13	53 2.30 42	2 0.05 1	0	210 3.44 62	33 0.69 13	37 1.04 19	22 0.35 6	0.7	0.33	--	335 309	160	
8N/14W-11G 1 S 6- 8-65	77	8.0	372	35 1.75 45	4 0.33 9	40 1.74 45	2 0.05 1	0	173 2.84 74	24 0.50 13	13 0.37 10	9 0.15 4	0.3	0.05	--	230 212	104	
8N/14W-15G 1 S 6- 8-65	73	7.7	455	40 2.00 43	6 0.49 11	48 2.09 45	2 0.05 1	0	176 2.88 63	26 0.54 12	32 0.90 20	16 0.26 6	0.7	0.50	--	280 258	125	
9N/ 8W- 6H 1 S 10-13-64	72	7.6	1180	26 1.30 11	9 0.74 6	230 10.00 82	5 0.13 1	0	305 5.00 42	149 3.10 26	132 3.72 31	8.0 0.13 1	1.9	1.00	37	747 749	102	
9N/ 8W- 6H 2 S 10-13-64	72	7.9	918	14 0.70 7	7 0.58 6	190 8.26 86	2 0.05 1	0	288 4.72 50	113 2.35 25	71 2.00 21	20 0.32 3	2.8	0.90	39	584 601	84	

TABLE E-1

ANALYSES OF GROUND WATER  
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million				
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	Total Evaporates as CaCO <sub>3</sub>		
ANTELOPE HYDRO SUBUNIT																		
LANCASTER VALLEY HYDRO SUBAREA W26A5																		
W26A0																		
ANTELOPE HYDRO UNIT																		
W2600																		
9N/ 8W- 6J 1 S 10-13-64	72	8.5	1170	28 1.40 12	7 0.58 5	230 10.00 83	2 0.05	13 0.43 4	280 4.59 39	151 3.14 27	124 3.50 30	9.5 0.15 1	1.7	1.10	37	1.7	742	99
9N/ 9W- 6A 1 S 10-12-64	68	7.4	649	50 2.50 40	12 0.99 16	62 2.70 43	1 0.03	0	133 2.18 35	117 2.44 39	56 1.58 25	1.1 0.02	0.5	0.30	30	0.5	412	175
9N/ 9W- 6L 1 S 10- 9-64	68	7.4	793	56 2.79 37	14 1.15 15	80 3.48 47	2 0.05 1	0	140 2.29 31	114 2.37 32	99 2.79 37	1.1 0.02	0.6	0.30	35	0.6	496	197
9N/ 9W-18C 1 S 10- 9-64	69	7.5	379	29 1.45 39	2 0.16 4	48 2.09 56	2 0.05 1	0	139 2.28 59	58 1.21 31	12 0.34 9	1.3 0.02 1	0.2	0.20	30	0.2	252	81
9N/10W-16C 2 S 10- 9-64	69	7.5	669	40 2.00 30	11 0.90 14	83 3.61 55	3 0.08 1	0	151 2.47 38	117 2.44 37	56 1.58 24	1.7 0.03	1.2	0.40	38	1.2	445	145
9N/10W-24C 1 S 10- 9-64	67	7.4	414	12 0.60 15	2 0.16 4	75 3.26 80	1 0.03 1	0	151 2.47 61	59 1.23 30	12 0.34 8	0.4 0.01	0.6	0.40	30	0.6	275	38
9N/10W-24E 1 S 10- 9-64	67	7.5	400	19 0.95 24	2 0.16 4	66 2.87 72	1 0.03 1	0	149 2.44 60	59 1.23 30	13 0.37 9	0.4 0.01	0.5	0.30	30	0.5	273	56
9N/10W-24F 1 S 10- 9-64	69	7.5	341	24 1.20 35	2 0.16 5	46 2.00 59	2 0.05 1	0	139 2.28 65	50 1.04 30	6 0.17 5	0.6 0.01	0.4	0.10	29	0.4	232	68
																	228	



TABLE E-1

ANALYSES OF GROUND WATER  
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million reactance value				Mineral constituents in parts per million					
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trite NO <sub>3</sub>	Fuo- ride F	Baron B	Sili- ca SiO <sub>2</sub>	Total Hardness Equiv 105°C Equiv 105°C Computed	
ANTELOPE HYDRO SUBUNIT W26A0 W2600																	
LANCASTER VALLEY HYDRO SUBAREA W26A5																	
9N/10W-24G 1 S 10- 9-64	68	7.8	352	25 1.25 35	3 0.25 7	46 2.00 56	2 0.05 1	0	137 2.25 64	52 1.08 31	7 0.20 6	0.4 0.01	0.4	0.20	30	235 233	75
9N/10W-34P 3 S 10- 9-64	74	7.7	351	17 0.85 24	1 0.08 2	58 2.52 72	2 0.05 1	0	140 2.29 65	50 1.04 30	6 0.17 5	1.1 0.02 1	0.8	0.20	32	251 237	47
9N/12W-16K 1 S 6-11-65	--	8.0	1950	242 12.08 52	41 3.37 14	175 7.61 33	8 0.20 1	0	374 6.13 26	480 9.99 43	255 7.19 31	6 0.10	0.4	0.84	--	1552 1392	773
9N/12W-31D 1 S 6- 3-65	75	7.9	345	25 1.25 33	9 0.74 20	39 1.70 45	2 0.05 1	0	142 2.33 65	34 0.71 20	17 0.48 13	5 0.08 2	0.4	0.16	--	212 201	100
9N/13W-27N 1 S 6- 3-65	75	7.7	404	31 1.55 39	7 0.58 14	42 1.83 46	2 0.05 1	0	144 2.36 58	51 1.06 26	20 0.56 14	6 0.10 2	0.4	0.12	--	245 230	107
9N/13W-29E 1 S 6- 3-65	76	7.8	484	37 1.85 39	11 0.90 19	44 1.91 41	2 0.05 1	0	142 2.33 49	39 0.81 17	52 1.47 31	8 0.13 3	0.4	0.14	--	280 263	138
9N/13W-32M 1 S 6- 3-65	78	7.7	327	20 1.00 30	7 0.58 18	38 1.65 50	2 0.05 2	0	124 2.03 63	26 0.54 17	19 0.54 17	7 0.11 3	0.4	0.10	--	200 180	79
9N/14W-23B 1 S 6- 4-65	78	7.9	420	41 2.05 43	10 0.82 17	42 1.83 39	2 0.05 1	0	183 3.00 62	52 1.08 22	23 0.65 13	8 0.13 3	0.2	0.17	--	260 268	144

**TABLE E-1**  
ANALYSES OF GROUND WATER  
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reactance value				Mineral constituents in parts per million					
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Fluoride	Boron	Silica	Total hardness at 105°C	Total hardness at 180°C	Total hardness at 201°C
Date sampled				Co	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	F	B	SiO <sub>2</sub>	CaCO <sub>3</sub>	CaCO <sub>3</sub>	CaCO <sub>3</sub>
<div> <div>ANTELOPE HYDRO SUBUNIT</div> <div>W26A0</div> <div>LANCASTER VALLEY HYDRO SUBAREA</div> <div>W26A5</div> </div>																	
9N/14W-250 1 S 6- 4-65	78	8.0	360	25 1.25 30	10 0.82 19	48 2.09 50	0.05 0.03 1	2	0	142 2.33 58	34 0.71 18	30 0.85 21	8 0.13 3	0.25	--	226 227	104
<div> <div>NORTH MUROC HYDRO SUBAREA</div> <div>W26A6</div> </div>																	
10N/ 9W- 4D 2 S 10- 9-64	69	7.4	518	5 0.25 5	1 0.08 2	112 4.87 93	1 0.03 1	1	0	208 3.41 66	61 1.27 24	18 0.51 10	0.3	0.30	24	336 326	17
10N/ 9W- 5B 1 S 10- 9-64	69	8.0	1150	25 1.25 11	5 0.41 4	220 9.57 85	2 0.05 2	0	0	269 4.41 39	107 2.23 20	162 4.57 41	0.2	0.70	29	693 684	83
10N/ 9W- 7A 1 S 10- 9-64	67	7.5	1370	14 0.70 5	3 0.25 2	275 11.96 92	2 0.05 2	0	0	298 4.88 37	94 1.96 15	226 6.37 48	0.9 0.01	0.80	38	817 803	48
10N/ 9W- 7A 2 S 10- 9-64	68	7.6	3580	91 4.54 14	28 2.30 7	610 26.52 79	4 0.10 2	0	0	234 3.84 11	141 2.94 9	960 27.07 79	22.0 0.35 1	0.60	38	2100 2011	342
11N/ 7W-32G 4 S 6- 9-65	--	8.1	1800	41 2.05 11	6 0.49 3	365 15.87 85	8 0.20 1	0	0	268 4.39 24	274 5.70 31	293 8.26 45	4 0.06	4.20	--	1096 1128	127
11N/ 8W-10R 1 S 6- 9-65	--	8.0	900	30 1.50 16	9 0.74 8	162 7.04 74	9 0.23 2	0	0	163 2.67 29	119 2.48 27	145 4.09 44	2 0.03	0.98	--	552 558	112

TABLE E-1  
ANALYSES OF GROUND WATER  
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million reactance value					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	TDS Evap 105°C Evap 105°C Computed	Total hardness as CaCO <sub>3</sub>	
ANTELOPE HYDRO SUBUNIT																		
NORTH MUROC HYDRO SUBAREA																		
W26A0																		
W26A6																		
11N/ 8W-20H 2 S 6- 9-65	--	7.6	630	44 2.20 32	17 1.40 20	74 3.22 46	5 0.13 2	0	189 3.10 44	101 2.10 30	63 1.78 25	5 0.08 1	0.4	1.23	--	430 404	180	
11N/ 8W-22L 1 S 5-12-65	--	8.6	1282	38 1.90 15	13 1.07 9	215 9.35 74	10 0.26 2	13 0.43 4	169 2.77 23	171 3.56 29	180 5.08 42	14 0.23 2	--	10.80	74	936 822	149	
11N/ 8W-30F 1 S 6- 9-65	--	8.2	1700	102 5.09 27	36 2.96 16	240 10.44 56	9 0.23 1	0	189 3.10 17	166 3.46 18	429 12.10 64	7 0.11 1	0.2	1.69	--	1214 1084	403	
11N/ 8W-32H 1 S 4-30-65	--	8.2	1818	80 3.99 23	17 1.40 8	270 11.74 68	10 0.26 1	0	148 2.43 14	132 2.75 16	432 12.18 70	2.0 0.03	--	0	64	1154 1080	270	
11N/ 8W-35N 1 S 4-30-65	--	8.2	1459	63 3.14 23	9 0.74 6	220 9.57 71	--	0	143 2.34 17	217 4.52 34	231 6.51 49	3.0 0.05	--	0.01	--	967 813	194	
11N/ 9W-24Q 1 S 4-30-65	--	8.4	1220	82 4.09 35	23 1.89 16	130 5.65 49	--	12 0.40 3	131 2.15 18	156 3.25 28	205 5.78 50	5.5 0.09 1	--	0	61	805 739	299	
11N/ 9W-28K 1 S 6- 9-65	--	8.1	684	5 0.25 4	2 0.16 2	147 6.39 94	1 0.03	0	207 3.39 51	78 1.62 24	58 1.64 25	2 0.03	0.9	0.32	--	420 396	21	
11N/ 9W-31C 1 S 6- 9-65	--	7.7	1300	70 3.49 28	16 1.32 11	168 7.30 59	7 0.18 1	0	163 2.67 22	69 1.44 12	278 7.84 65	5 0.08 1	0.3	0.24	--	760 694	241	

TABLE E-1  
ANALYSES OF GROUND WATER  
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent reactance value					Mineral constituents in parts per million				
				Calcium	Magne-sium	Sodium	Potas-sium	Carbon-ate	Bicar-bonate	Sulfate	Chlo-ride	Ni-trate	Fluo-ride	Boron	Sulfur dioxide	I.D.S. Eval. 180°C	Total hardness as CaCO <sub>3</sub>	
Date sampled				Co	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SO <sub>2</sub>	Computed		
ANTELOPE HYDRO SUBUNIT																		
W26A0																		
NORTH MUROC HYDRO SUBAREA																		
W26A6																		
11IN/ 9W-32Q 1 S 10- 9-64	70	7.4	893	9 0.45 5	2 0.16 2	184 8.00 93	1 0.03	0	266 4.36 50	86 1.79 20	92 2.59 30	0.2	1.3	0.70	28	539 535	31	
11IN/ 9W-33F 1 S 6- 9-65	--	7.8	554	11 0.55 10	6 0.49 9	105 4.57 81	2 0.05 1	0	203 3.33 60	70 1.46 26	25 0.71 13	2 0.03 1	1.4	0.26	--	350	52	
11IN/ 9W-34K 1 S 6- 9-65	--	7.9	911	9 0.45 5	4 0.33 4	195 8.48 91	2 0.05 1	0	278 4.56 50	76 1.58 17	100 2.82 31	6 0.10 1	2.0	0.40	--	570	39	
11IN/ 9W-36C 1 S 4-30-65	--	8.1	1667	93 4.64 28	26 2.14 13	220 9.57 59	--	0	200 3.28 20	190 3.96 25	312 8.80 55	5.3 0.09 1	--	5.30	58	1123 1008	339	
11IN/10W-36H 1 S 6- 9-65	--	7.5	1779	92 4.59 26	27 2.22 12	253 11.00 61	5 0.13 1	0	310 5.08 29	189 3.93 22	306 8.63 49	1 0.02	0.6	0.56	--	1085 1027	341	
BUTTES HYDRO SUBAREA																		
W26A7																		
5N/11W- 9A 1 S 6- 8-65	68	7.4	311	36 1.80 54	9 0.74 22	17 0.74 22	3 0.08 2	0	151 2.47 74	32 0.67 20	6 0.17 5	1 0.02 1	0.3	0.04	--	200 179	127	
5N/11W- 9A 2 S 6- 8-65	68	7.5	311	33 1.65 50	9 0.74 23	19 0.83 25	2 0.05 2	0	146 2.39 74	31 0.65 20	6 0.17 5	1 0.02 1	0.3	0.04	--	195 173	120	



**TABLE E-1**  
ANALYSES OF GROUND WATER  
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million				Mineral constituents in parts per million					
				Calcium m/m Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlor- ide Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	Total Hardness as CaCO <sub>3</sub>	
ANTELOPE HYDRO SUBUNIT																	
BUTTES HYDRO SUBAREA				W26A0													
				W26A7													
ANTELOPE HYDRO UNIT																	
				W2600													
6N/ 9W-10Q 1 S 6- 3-65	73	8.1	350	27 1.35 35	6 0.49 13	44 1.91 50	3 0.08 2	0	160 2.62 68	48 1.00 26	7 0.20 5	1 0.02 1	0.4	0.10	--	252 215	92
6N/10W-24H 1 S 6- 2-65	67	8.2	400	47 2.35 52	13 1.07 24	24 1.04 23	3 0.08 2	0	195 3.20 72	49 1.02 23	8 0.23 5	0	0.4	0.18	--	254 240	171
6N/10W-27F 1 S 6- 2-65	--	8.2	390	38 1.90 46	18 1.48 36	16 0.70 17	3 0.08 2	0	185 3.03 70	50 1.04 24	7 0.20 5	2 0.03 1	0.1	0.08	--	248 225	169
6N/10W-30H 2 S 5- 4-65	--	8.2	260	9 0.45 17	2 0.16 6	45 1.96 75	1 0.03 1	0	99 1.62 61	24 0.50 19	18 0.51 19	2 0.03 1	0.1	0.08	--	184 150	31
7N/ 9W-34L 2 S 6-10-65	--	7.7	450	36 1.80 39	7 0.58 13	50 2.17 47	3 0.08 2	0	138 2.26 47	100 2.08 44	13 0.37 8	3 0.05 1	0.2	0.07	--	274 280	119
8N/ 9W-36Q 1 S 6-10-65	--	7.7	1400	101 5.04 35	23 1.89 13	170 7.39 51	9 0.23 2	0	84 1.38 9	207 4.31 29	237 6.68 46	142 2.29 16	0.2	0.35	--	980 931	347
ROCK CREEK HYDRO SUBAREA				W26A8													
4N/ 9W- 6B 1 S 6-11-65	62	7.9	570	66 3.29 49	30 2.47 37	19 0.83 12	5 0.13 2	0	283 4.64 68	84 1.75 26	11 0.31 5	9 0.15 2	0.4	0.16	--	362 364	288



TABLE E-1

ANALYSES OF GROUND WATER  
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					Mineral constituents in parts per million									
				Calcium Co	Magne-sium Mg	Sodium Na	Potas-sium K	Carbon-ate CO <sub>3</sub>	Bicar-bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo-ride Cl	Ni-trate NO <sub>3</sub>	Fluo-ride F	Boron B	Sili-ca SiO <sub>2</sub>	Total I.O.S. Exap. 180°C hardness as CaCO <sub>3</sub>		
ANTELOPE HYDRO SUBUNIT																		
ROCK CREEK HYDRO SUBAREA																		
W26A0																		
W26A8																		
ANTELOPE HYDRO UNIT																		
W2600																		
5N/ 8W-13R 1 S 6-11-65	--	7.4	500	44 2.20 41	17 1.40 26	36 1.57 30	6 0.15 3	0	111 1.82 34	162 3.37 63	6 0.17 3	2 0.03 1	0.2	0.05	--	326 328	180	
5N/ 9W-21F 1 S 6- 2-65	--	8.1	360	18 0.90 24	2 0.16 4	62 2.70 71	2 0.05 1	0	157 2.57 68	44 0.92 24	9 0.25 7	4 0.06 2	0.8	0.13	--	216 219	53	
5N/ 9W-25A 1 S 6- 8-65	69	7.7	402	27 1.35 32	12 0.99 23	42 1.83 43	4 0.10 2	0	178 2.92 68	56 1.17 27	6 0.17 4	2 0.03 1	0.3	0.05	--	260 237	117	
5N/10W- 7R 1 S 6-11-65	--	8.1	390	30 1.50 37	6 0.49 12	46 2.00 50	2 0.05 1	0	136 2.23 55	62 1.29 32	18 0.51 13	2 0.03 1	0.4	0.09	--	240 233	100	
5N/10W-16A 2 S 6- 2-65	70	8.1	390	30 1.50 34	16 1.32 30	35 1.52 35	2 0.05 1	0	163 2.67 60	53 1.10 25	23 0.65 15	4 0.06 1	0.2	0.10	--	256 243	141	
5N/10W-26B 9 S 6- 2-65	--	7.9	650	68 3.39 44	22 1.81 23	58 2.52 32	2 0.05 1	0	289 4.74 61	106 2.21 28	26 0.73 9	6 0.10 1	0.2	0.08	--	426 430	260	
5N/10W-29R 1 S 6-11-65	--	8.1	1300	89 4.44 31	36 2.96 20	160 6.96 48	5 0.13 1	0	219 3.59 24	424 8.83 60	80 2.26 15	3 0.05 0	0.6	0.26	--	920 905	370	
5N/11W-12F 1 S 6- 2-65	--	8.0	880	69 3.44 34	58 4.77 47	40 1.74 17	4 0.10 1	0	300 4.92 48	163 3.39 33	49 1.38 14	33 0.53 5	0.1	0.12	--	622 564	411	

TABLE E-1  
ANALYSES OF GROUND WATER  
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million							Mineral constituents in parts per million						
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	Total Dissolved Solids Evap 180°C at 105°C Computed CaCO <sub>3</sub>	
ANTELOPE HYDRO SUBUNIT																	
ROCK CREEK HYDRO SUBAREA																	
W26A0				W26A8							W2600						
6N/ 8W-19N 1 S 6- 3-65	76	8.2	420	27 1.35 30	3 0.25 5	67 2.91 64	2 0.05 1	0	128 2.10 47	98 2.04 46	10 0.28 6	3 0.05 1	0.8	0.13	--	272 274	80
6N/ 8W-21J 1 S 6- 3-65	--	8.1	510	22 1.10 21	17 1.40 26	62 2.70 51	4 0.10 2	0	106 1.74 33	164 3.41 64	6 0.17 3	2 0.03 1	0.2	0.09	--	328 329	125
6N/ 8W-35F 2 S 6- 3-65	77	8.1	450	28 1.40 29	9 0.74 15	61 2.65 54	4 0.10 2	0	110 1.80 38	135 2.81 59	4 0.11 2	3 0.05 1	0.2	0.06	--	302 298	107
6N/ 9W-23N 1 S 6- 3-65	--	8.1	355	40 2.00 51	11 0.90 23	21 0.91 23	3 0.08 2	0	161 2.64 69	40 0.83 22	11 0.31 8	3 0.05 1	0.2	0.13	--	216 208	145
6N/ 9W-28K 1 S 6- 3-65	--	8.1	520	25 1.25 23	4 0.33 6	86 3.74 70	2 0.05 1	0	117 1.92 37	125 2.60 50	22 0.62 12	2 0.03 1	1.6	0.23	--	330 325	79
6N/ 9W-28P 1 S 6- 2-65	72	8.0	400	39 1.95 44	8 0.66 15	39 1.70 39	3 0.08 2	0	153 2.51 59	65 1.35 32	13 0.37 9	2 0.03 1	0.4	0.19	--	260 245	131

**TABLE E-1**  
ANALYSES OF GROUND WATER  
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				Mineral constituents in parts per million								
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- co SiO <sub>2</sub>	TDS Equiv 105°C Computed	Total hardness as CaCl <sub>2</sub>			
EL MIRAGE HYDRO SUBUNIT				MOJAVE HYDRO UNIT																
W28A0				W2800																
3N/ 7W-9M 1 S 4- 6-65	--	7.5	642	88 4.39 61	28 2.30 32	10 0.43 6	4 0.10 1	0	342 5.61 77	62 1.29 18	15 0.42 6	0.8 0.01	0.4	0.06	--	366 376	335			
6N/ 7W-11R 1 S 4- 6-65	--	8.6	531	0	2 0.16 3	110 4.78 96	1 0.03 1	5 0.17 3	107 1.75 35	140 2.91 58	7 0.20 4	0	1.3	0.16	--	333 319	8			
6N/ 7W-12G 1 S 12-14-64	--	7.8	1088	76 3.79 33	22 1.81 16	134 5.83 51	2 0.05	0	132 2.16 19	414 8.62 74	31 0.87 7	0.6 0.01	1.3	0.06	--	784 746	280			
6N/ 7W-19E 1 S 4- 6-65	--	7.8	553	42 2.10 38	13 1.07 19	51 2.22 40	5 0.13 2	0	85 1.39 25	187 3.89 71	7 0.20 4	0.6 0.01	0.6	0.02	--	357 348	159			

TABLE E-1

ANALYSES OF GROUND WATER  
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent reactance value					Mineral constituents in parts per million				
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- co SiO <sub>2</sub>	T.O.S. Evap 180°C Evap 105°C Computed CO <sub>2</sub> H <sub>2</sub> O		
UPPER MOJAVE HYDRO SUBUNIT				W28B0					MOJAVE HYDRO UNIT					W2800				
2N/ 2W-30K 1 S 5- 4-65	--	7.1	87	5 0.25 29	5 0.41 48	4 0.17 20	1 0.03 3	0	49 0.80 90	0	3 0.08 9	0.4 0.01 1	0.3	0.01	--	66 43		
2N/ 2W-32R 2 S 5- 4-65	--	6.8	64	4 0.20 31	3 0.25 38	4 0.17 26	1 0.03 5	0	27 0.44 77	1 0.02 4	4 0.11 19	0.3	0.2	0.05	--	22 31		
2N/ 3W-26E 1 S 5- 4-65	--	6.9	185	17 0.85 48	7 0.58 33	7 0.30 17	.2 0.05 3	0	76 1.25 71	6 0.12 7	5 0.14 8	15 0.24 14	0.2	0	--	98 97		
2N/ 4W- 6R 1 S 1- 4-65	--	7.2	330	38 1.90 57	5 0.41 12	23 1.00 30	2 0.05 1	0	71 1.16 35	40 0.83 25	36 1.02 31	18 0.29 9	0.1	0.07	--	234 197		
5- 3-65	--	6.3	155	10 0.50 30	6 0.49 30	15 0.65 40	0	0	39 0.64 42	7 0.15 10	14 0.39 26	21 0.34 22	0	0.01	--	123 92		
2N/ 4W-10J 1 S 1-19-65	--	7.6	391	50 2.50 60	11 0.90 21	17 0.74 18	2 0.05 1	0	230 3.77 90	10 0.21 5	7 0.20 5	1 0.02	0.4	0.16	--	244 212		
3N/ 4W-32H 1 S 1- 4-65	--	7.8	310	33 1.65 51	7 0.58 18	22 0.96 30	2 0.05 2	0	108 1.77 55	32 0.67 21	25 0.71 22	4 0.06 2	0.1	0.07	--	204 178		
4N/ 3W- 1M 1 S 3- 3-65	--	7.4	1452	103 5.14 36	26 2.14 15	155 6.74 48	5 0.13 1	0	112 1.84 13	207 4.31 31	280 7.50 56	3.5 0.06	0.6	0.75	--	946 836		

TABLE E-1  
ANALYSES OF GROUND WATER  
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million				
				MOJAVE HYDRO UNIT					W28B0					W2800				
Date sampled	in °F			MOJAVE HYDRO UNIT					W28B0					W2800				
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- co SiO <sub>2</sub>	T.D.S. Evap 180°C Evap 100°C Computed CaCO <sub>3</sub>	Total Hardness as CaCO <sub>3</sub>	
4N/ 3W- 6D 2 S 3- 3-65	--	7.2	325	38 1.90 58	7 0.58 18	17 0.74 23	2 0.05 2	0	134 2.20 66	11 0.23 7	11 0.31 9	36.5 0.59 18	0.3	0.01	--	229 189	124	
4N/ 3W- 9N 2 S 4- 7-65	--	7.6	143	11 0.55 38	6 0.49 34	9 0.39 27	1 0.03 2	0	71 1.16 83	4 0.08 6	4 0.11 8	2.5 0.04 3	0.4	0.02	--	115 73	52	
4N/ 3W-20L 1 S 4-14-65	--	7.4	304	37 1.85 58	8 0.66 21	14 0.61 19	2 0.05 2	0	146 2.39 77	15 0.31 10	7 0.20 6	12.5 0.20 6	0.4	0.01	--	199 168	126	
4N/ 3W-21E 1 S 4- 7-65	--	7.6	183	18 0.90 48	5 0.41 22	12 0.52 28	1 0.03 2	0	90 1.48 83	7 0.15 8	5 0.14 8	1.4 0.02 1	0.7	0.02	--	118 94	66	
5N/ 3W-18F 1 S 4- 7-65	--	7.9	507	39 1.95 40	11 0.90 18	46 2.00 41	2 0.05 1	0	100 1.64 34	75 1.56 33	54 1.52 32	4.5 0.07 1	0.7	0.28	--	327 282	143	
5N/ 3W-25F 1 S 4- 7-65	--	7.6	1223	55 2.74 24	16 1.32 12	162 7.04 63	4 0.10 1	0	46 0.75 7	161 3.35 30	244 6.88 62	1.7 0.03 2	1.3	0.44	--	725 668	203	
5N/ 4W- 8Q 1 S 4- 7-65	--	7.9	183	6 0.30 16	0 0.30 16	35 1.52 82	1 0.03 2	0	98 1.61 84	2 0.04 2	8 0.23 12	1.7 0.03 2	0.3	0.02	--	106 102	15	
5N/ 4W- 9G 2 S 4- 7-65	--	8.4	169	6 0.30 16	1 0.08 4	35 1.52 79	1 0.03 2	7 0.23 12	85 1.39 74	2 0.04 2	6 0.17 9	2.6 0.04 2	0.3	0	--	117 103	19	



TABLE E-1  
ANALYSES OF GROUND WATER  
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent				Mineral constituents in parts per million									
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- co SiO <sub>2</sub>	TDS Evap-180°C Evap-105°C Computed	Total hardness as CaCO <sub>3</sub>				
UPPER MOJAVE HYDRO SUBUNIT																					
				W2880				MOJAVE HYDRO UNIT										W2800			
5N/ 4W- 9J 1 S 4- 7-65	--	8.9	196	6 0.30 15	1 0.08 4	37 1.61 80	1 0.03 1	7 0.23 11	95 1.56 74	7 0.15 7	5 0.14 7	1.2 0.02 1	0.2	0	--	121 112	19				
5N/ 4W- 9P 1 S 4- 7-65	--	8.1	191	8 0.40 20	4 0.33 16	29 1.26 62	1 0.03 1	0	100 1.64 84	6 0.12 6	6 0.17 9	1.5 0.02 1	0.5	0.03	--	129 105	37				
5N/ 4W-11P 2 S 4-14-65	--	8.6	323	13 0.65 20	5 0.41 13	50 2.17 67	1 0.03 1	7 0.23 7	63 1.03 32	32 0.67 21	45 1.27 40	0	0.9	0.17	--	215 185	53				
5N/ 4W-16M 1 S 4- 7-65	--	8.2	197	6 0.30 15	4 0.33 17	30 1.30 66	1 0.03 2	2 0.07 4	100 1.64 86	1 0.02 1	5 0.14 7	1.9 0.03 2	0.2	0.01	--	111 100	32				
5N/ 4W-208 1 S 4- 7-65	--	8.4	197	6 0.30 42	3 0.25 35	3 0.13 18	1 0.03 4	5 0.17 9	95 1.56 81	1 0.02 1	5 0.14 7	2.0 0.03 2	0.2	0.01	--	110 73	28				
5N/ 5W-22E 2 S 4- 6-65	--	7.9	447	27 1.35 32	8 0.66 15	50 2.17 51	3 0.08 2	0	68 1.11 27	128 2.66 65	10 0.28 7	1.8 0.03 1	0.4	0.05	--	275 262	101				
6N/ 3W- 9D 1 S 4-14-65	--	8.5	794	5 0.25 3	1 0.08 1	158 6.87 95	2 0.05 1	10 0.33 5	66 1.08 16	205 4.27 65	31 0.87 13	0.3	17.6	1.15	--	489 463	17				
6N/ 3W- 9E 1 S 4-14-65	--	8.0	1761	36 1.80 10	7 0.58 3	344 14.96 86	4 0.10 1	0	264 4.33 26	366 7.62 45	146 4.12 25	42 0.68 4	15.4	1.73	--	1138 1092	119				

TABLE E-1  
ANALYSES OF GROUND WATER  
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million								
				Calcium	Magne-sium	Sodium	Potash-sium	Carbon-ate	Bicar-bonate	Sulfate	Chlor-ide	Nitrate	Fluor-ide	Borax	Silica	Total hardness as CaCO <sub>3</sub>		
Date sampled				Co	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B <sub>2</sub> O <sub>3</sub>	SiO <sub>2</sub>	Evap. 180°C	Evap. 105°C	Computed
UPPER MOJAVE HYDRO SUBUNIT																		
				W28B0										W2800				
6N/ 3W-28R 1 S 4-14-65	--	7.8	933	82 4.09 45	19 1.56 17	78 3.39 37	2 0.05 1	0	122 2.00 22	155 3.23 36	97 2.74 30	66 1.06 12	0.9	0.28	--	613	560	283
6N/ 4W-6D 1 S 4-14-65	--	7.9	845	81 4.04 47	14 1.15 13	77 3.35 39	4 0.10 1	0	186 3.05 36	157 3.27 39	77 2.17 26	0.3 0.3	0.9	0.15	--	541	260	
6N/ 5W-8F 1 S 4-6-65	--	8.1	449	7 0.35 8	2 0.16 4	88 3.83 88	1 0.03 1	0	120 1.97 45	107 2.23 51	6 0.17 4	1.8 0.03 1	0.6	0.10	--	285	26	
6N/ 5W-29J 2 S 4-6-65	--	7.8	462	36 1.80 38	10 0.82 17	47 2.04 43	2 0.05 1	0	190 3.11 65	37 0.77 16	31 0.87 18	0.1 0.1	0.5	0.06	--	253	131	
7N/ 4W-7C 1 S 12-2-64	--	7.4	686	78 3.89 54	11 0.90 12	56 2.43 33	2 0.05 1	0	287 4.70 65	72 1.50 21	37 1.04 14	0.4 0.01	0.6	0.09	--	410	240	
5-25-65	--	7.6	1196	119 5.94 46	23 1.89 15	117 5.09 39	4 0.10 1	0	393 6.44 50	192 4.00 31	82 2.31 18	1.4 0.02	0.8	0.25	--	779	392	
7N/ 4W-31N 1 S 4-14-65	--	7.8	714	84 4.19 56	11 0.90 12	54 2.35 31	2 0.05 1	0	276 4.52 62	61 1.27 17	55 1.55 21	0.3 0.3	0.7	0.20	--	733	255	
7N/ 5W-22N 2 S 4-7-65	--	8.3	487	24 1.20 25	3 0.25 5	76 3.30 69	2 0.05 1	0	151 2.47 52	101 2.10 44	7 0.20 4	1 0.02	0.9	0.11	--	318	73	

TABLE E-1  
ANALYSES OF GROUND WATER  
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent		million reactance value		Mineral constituents in parts per million				Total dissolved solids		
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>			
UPPER MOJAVE HYDRO SUBUNIT																		
				W2880														
MOJAVE HYDRO UNIT																		
				W2800														
8N/ 4W-31R 1 S 5-25-65	--	7.2	1797	161 8.03 40	28 2.30 11	222 9.65 48	4 0.10	0	498 8.16 41	405 8.43 42	118 3.33 17	3.5 0.06	0.7	0.43	--	1257 1187	517	

TABLE E-1

ANALYSES OF GROUND WATER  
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in						parts per million equivalents per million percent reactance value				Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- dioxide CO <sub>2</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fu- sile F	Boron B	Sul- fa- te S <sub>2</sub> O <sub>3</sub>	TDS Evap residue Computed	Total Hardness at 105°C CaCO <sub>3</sub>	
MOJAVE HYDRO UNIT																		
W2800																		
8N/ 4W-12P 1 S 12- 2-64	--	7.4	1139	132 6.59 56	18 1.48 13	84 3.65 31	4 0.10 1	0	344 5.64 47	113 2.35 20	100 2.82 24	70.0 1.13 9	0.6	0.20	--	702 404		
5-26-65	--	7.6	1180	138 6.89 55	22 1.81 15	84 3.65 29	4 0.10 1	0	356 5.83 47	115 2.39 19	108 3.05 25	68 1.10 9	0.5	0.11	--	799 435		
8N/ 4W-20A 1 S 12- 2-64	--	7.4	1595	4.04 81 26	0.99 12 6	10.52 242 67	0.08 3 1	0	248 4.06 26	261 5.43 34	221 6.23 39	12.0 0.19 1	0.8	0.74	--	969 252		
5-26-65	--	7.6	2132	116 5.79 27	19 1.56 7	321 13.96 65	3 0.08 0	0	288 4.72 22	357 7.43 35	323 9.11 43	10.6 0.17 1	0.9	0.82	--	1363 368		
8N/ 4W-21C 1 S 12- 2-64	--	7.6	1495	175 8.73 52	31 2.55 15	123 5.35 32	3 0.08 0	0	132 2.16 13	581 12.10 73	84 2.37 14	0.7 0.01 0	0.8	0.20	--	1096 564		
5-26-65	--	7.5	1511	177 8.83 52	35 2.88 17	120 5.22 31	3 0.08 0	0	144 2.36 14	572 11.91 71	90 2.54 15	0.7 0.01 0	0.8	0.23	--	1140 586		
9N/ 2W- 1F 2 S 12- 2-64	--	8.0	680	51 2.54 37	11 0.90 13	79 3.43 50	2 0.05 1	0	199 3.26 48	102 2.12 31	48 1.35 20	7 0.11 2	0.8	0.30	--	411 172		
5-25-65	--	7.5	787	58 2.89 37	14 1.15 15	86 3.74 48	3 0.08 1	0	203 3.33 42	130 2.71 35	58 1.64 21	9.9 0.16 2	0.9	0.45	--	493 202		

TABLE E-1  
ANALYSES OF GROUND WATER  
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reactivity value				Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlor- ide Cl	Ni- trate NO <sub>3</sub>	Fer- ride Fe	Bor- on B	Sil- ica SiO <sub>2</sub>	I.D.S. Evap Resid Evap Resid as Compd CaCl <sub>2</sub>
MIDDLE MOJAVE HYDRO SUBUNIT																
W28C0																
9N/ 2W- 6B 1 S 12- 2-64	--	7.7	344	28 1.40 41	6 0.49 14	34 1.48 43	2 0.05 1	0	137 2.25 65	29 0.60 17	19 0.54 16	3.8 0.06 2	0.6	0.08	--	196 190
5-25-65	--	7.6	341	27 1.35 39	8 0.66 19	33 1.43 41	2 0.05 1	0	134 2.20 65	26 0.54 16	20 0.56 17	3.5 0.06 2	0.7	0.08	--	205 186
9N/ 2W-17E 1 S 12- 2-64	--	8.2	727	28 1.40 19	8 0.66 9	118 5.13 71	2 0.05 1	7 0.23 3	189 3.10 44	112 2.33 33	48 1.35 19	3.5 0.06 1	3.4	0.96	--	460 424
9N/ 3W- 1J 1 S 12- 2-64	--	8.0	387	27 1.35 35	8 0.66 17	42 1.83 47	2 0.05 1	0	158 2.59 65	32 0.67 17	24 0.68 17	3.0 0.05 1	0.7	0.09	--	226 216
5-25-65	--	7.7	421	36 1.80 41	7 0.58 13	44 1.91 44	2 0.05 1	0	164 2.69 63	37 0.77 18	27 0.76 18	2.6 0.04 1	0.6	0.10	--	251 237
9N/ 3W- 3A 2 S 12- 2-64	--	7.9	597	48 2.40 39	10 0.82 13	66 2.87 47	2 0.05 1	0	209 3.43 56	63 1.31 21	47 1.33 22	2.0 0.03 1	0.7	0.15	--	346 342
5-24-65	--	7.8	596	47 2.35 39	10 0.82 14	64 2.78 46	2 0.05 1	0	207 3.39 56	63 1.31 22	47 1.33 22	0.8 0.01 1	0.7	0.14	--	325 336
9N/ 3W-24J 1 S 12- 2-64	--	7.9	612	30 1.50 25	8 0.66 11	88 3.83 63	3 0.08 1	0	212 3.47 57	72 1.50 25	40 1.13 18	1.0 0.02 1	1.2	0.33	--	367 348
MOJAVE HYDRO UNIT																
W2800																



TABLE E-1

(continued)

TABLE E-1  
ANALYSES OF GROUND WATER  
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents percent					Mineral constituents in parts per million				
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Flu- oride F	Boron B	Sili- ca SiO <sub>2</sub>	TDS Evap Residue as CaCO <sub>3</sub>		
MIDDLE MOJAVE HYDRO SUBUNIT				W28CO										W2800				
MOJAVE HYDRO UNIT																		
10N/ 3W-27D 1 S 12- 2-64	--	7.9	840	63 3.14 37	13 1.07 13	95 4.13 49	2 0.05 1	0	176 2.88 34	149 3.10 37	86 2.43 29	3.5 0.06 1	0.7	0.30	--	531 499	211	
5-24-65	--	8.2	831	63 3.14 38	13 1.07 13	91 3.96 48	2 0.05 1	5 0.17 2	164 2.69 33	143 2.98 36	82 2.31 28	3.2 0.05 1	0.7	0.36	--	514 484	211	
10N/ 3W-35E 1 S 12- 3-64	--	8.1	387	20 1.00 26	9 0.74 19	48 2.09 54	2 0.05 1	2 0.07 2	127 2.08 54	29 0.60 16	39 1.10 29	0.2 0 0	0.8	0.19	--	267 213 245	87 88	
5-24-65	--	8.0	399	22 1.10 28	8 0.66 17	50 2.17 55	2 0.05 1	0	134 2.20 54	45 0.94 23	34 0.96 23	0	0.8	0.19	--	228 549	310	
10N/ 3W-36J 2 S 12- 2-64	--	7.8	854	93 4.64 54	19 1.56 18	54 2.35 27	2 0.05 1	0	145 2.38 27	142 2.96 34	118 3.33 38	5.0 0.08 1	0.6	0.10	--	505 782	426	
5-24-65	--	7.5	1124	126 6.29 55	27 2.22 19	67 2.91 25	3 0.08 1	0	142 2.33 21	196 4.08 36	168 4.74 42	5.4 0.09 1	0.7	0.16	--	663		

TABLE E-1  
ANALYSES OF GROUND WATER  
LAHONTAN DRAINAGE PROVINCE (W)

State well number		Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million				Mineral constituents in parts per million				
Date sampled	Calcium Ca				Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	T.O.S. Evap (80°C) Hardness as CaCO <sub>3</sub>	
HARPER HYDRO SUBUNIT					W28D0				MOJAVE HYDRO UNIT				W2800				
HARPER HYDRO SUBAREA					W28D2												
10N/ 4W- 6H 1 S 4- 7-65	--	7.9	1275	41 2.05 16	5 0.41 3	228 9.91 79	5 0.13 1	0	157 2.57 21	244 5.08 42	154 4.34 36	3 0.05	0.8	1.30	--	897 759	123
11N/ 3W-15E 1 S 11-19-64	--	8.0	647	15 0.75 11	4 0.33 5	130 5.65 82	5 0.13 2	0	240 3.93 59	47 0.98 15	61 1.72 26	0.8 0.01	3.2	0.74	--	444 385	54
11N/ 4W- 6M 1 S 4- 7-65	--	8.0	2239	19 0.95 5	4 0.33 2	441 19.17 93	4 0.10	0	259 4.25 21	86 1.79 9	506 14.27 70	0	0.4	1.45	--	1220 1189	64
11N/ 4W-30N 2 S 4- 7-65	--	7.7	2076	70 3.49 17	10 0.82 4	359 15.61 78	8 0.20 1	0	205 3.36 17	269 5.60 28	379 10.69 54	4 0.06	0.9	1.80	--	1221 1202	216

TABLE E-1

ANALYSES OF GROUND WATER  
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (microhmhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million percent					Mineral constituents in parts per million								
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	TDS Evap 180°C as CaCO <sub>3</sub>	Total hardness as CaCO <sub>3</sub>					
LOWER MOJAVE HYDRO SUBUNIT																						
				W28EO					MOJAVE HYDRO UNIT										W2800			
9N/ 1E- 1L 1 S 12-31-64	--	7.5	480	39 1.95 40	9 0.74 15	50 2.17 44	2 0.05 1	0	199 3.26 66	36 0.75 15	30 0.85 17	4.5 0.07 1	0.6	0.12	--	288 269		135				
5-24-65	--	7.5	487	44 2.20 44	7 0.58 11	51 2.22 44	2 0.05 1	0	207 3.39 67	34 0.71 14	31 0.87 17	4.1 0.07 1	0.6	0.18	--	303 276		139				
9N/ 1E- 1M 1 S 12-31-64	--	7.3	48	45 2.25 45	6 0.49 10	51 2.22 44	2 0.05 1	0	207 3.39 67	37 0.77 15	30 0.85 17	3.6 0.06 1	0.6	0.13	--	299 277		137				
5-24-65	--	7.5	485	40 2.00 39	10 0.82 16	51 2.22 44	2 0.05 1	0	200 3.28 66	36 0.75 15	30 0.85 17	3.6 0.06 1	0.6	0.14	--	269 272		141				
9N/ 1E-13E 1 S 12- 4-64	--	8.2	668	61 3.04 45	11 0.90 13	64 2.78 41	3 0.08 1	5 0.17 2	199 3.26 47	90 1.87 27	51 1.44 21	12.0 0.19 3	0.7	0.49	--	426 396		197				
9N/ 1E-13E 2 S 12- 4-64	--	8.4	1013	93 4.64 42	16 1.32 12	112 4.87 45	4 0.10 1	12 0.40 4	313 5.13 46	139 2.89 26	83 2.34 21	19.6 0.32 3	0.7	0.68	--	660 634		298				
5-21-65	--	7.5	1031	90 4.49 41	21 1.73 16	107 4.65 42	4 0.10 1	0	325 5.33 50	135 2.81 26	83 2.34 22	9.5 0.15 1	0.7	0.68	--	642 611		311				
9N/ 1E-15N 2 S 12- 4-64	--	7.8	111	88 4.39 38	17 1.40 12	131 5.70 49	3 0.08 1	0	355 5.82 50	145 3.02 26	99 2.79 24	6.3 0.10 1	0.8	0	--	695 665		290				

TABLE E-1  
ANALYSES OF GROUND WATER  
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million reactance value					Mineral constituents in parts per million				
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	F. u. r. d. F	Bicarb. B	S. o. d. SO <sub>2</sub>	I.O.S. Evap. 105°C as CaCO <sub>3</sub> Computed	T. o. hardness as CaCO <sub>3</sub>	
LOWER MOJAVE HYDRO SUBUNIT				MOJAVE HYDRO UNIT														
W28EO				W2800														
9N/ 2E- 8N 2 S 12-31-64	--	7.8	358	26 1.30 35	8 0.66 18	39 1.70 46	1 0.03	0	163 2.67 72	26 0.54 15	16 0.45 12	2.5 0.04 1	0.7	0.09	--	230 199	98	
5-21-65	--	7.3	357	27 1.35 36	7 0.58 16	40 1.74 47	1 0.03	0	159 2.61 71	26 0.54 15	18 0.51 14	2.1 0.03 1	0.7	0.13	--	217 200	97	
9N/ 2E-18E 1 S 12-31-64	--	7.9	645	67 3.34 45	11 0.90 12	72 3.13 42	1 0.03	0	238 3.90 52	92 1.92 26	53 1.49 20	11.0 0.18 2	0.5	0.20	--	421 425	212	
5-21-65	--	7.6	574	53 2.64 45	10 0.82 14	55 2.39 41	2 0.05	0	188 3.08 53	70 1.46 25	42 1.18 20	6.2 0.10 2	0.6	0.15	--	352 331	173	
9N/ 2E-25K 1 S 3- 2-65	--	7.6	1144	85 4.24 37	18 1.48 13	130 5.65 49	6 0.15	0	195 3.20 28	250 5.21 45	110 3.10 27	5.5 0.09 1	0.8	2.65	--	780 704	286	
9N/ 2E-25M 1 S 3-30-65	--	7.9	1386	115 5.74 40	23 1.89 13	154 6.70 46	6 0.15	0	229 3.75 26	318 6.62 46	138 3.89 27	4.9 0.08 1	0.8	1.43	--	961 874	382	
9N/ 2E-25M 2 S 3-30-65	--	7.6	2421	133 6.64 25	21 1.73 7	406 17.65 67	6 0.15	0	476 7.80 30	610 12.70 49	191 5.39 21	9.5 0.15 1	1.2	2.88	--	1720 1615	419	
9N/ 2E-25O 1 S 3-30-65	--	7.3	2756	186 9.28 31	42 3.45 12	392 17.04 57	8 0.20	0	386 6.33 21	713 14.84 50	304 8.57 29	13 0.21 1	1.1	4.28	--	1980 1853	637	



TABLE E-1  
ANALYSES OF GROUND WATER  
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million													
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fuo- ride F	Boron B	Sili- co SiO <sub>2</sub>	Total Dissolved Solids as CaCO <sub>3</sub>							
				MOJAVE HYDRO UNIT																			
				W28E0						W2800													
10N/ 1E-28N 2 S 4- 6-65	--	7.6	700	29 1.45 22	11 0.90 13	97 4.22 63	5 0.13 2	0	126 2.07 31	119 2.48 37	75 2.12 32	0	0.6	2.30	--	401 118							
10N/ 1E-33P 1 S 4- 6-65	--	8.0	533	35 1.75 34	5 0.41 8	68 2.96 57	2 0.05 1	0	151 2.47 49	57 1.19 23	50 1.41 28	1 0.02	0.5	1.40	--	301 108							
10N/ 2E-31R 1 S 12-31-64	--	8.0	659	31 1.55 23	8 0.66 10	105 4.57 67	3 0.08 1	0	165 2.70 40	109 2.27 33	63 1.78 26	2.2 0.04 1	0.8	0.82	--	294 409 111							
5-24-65	--	8.0	660	34 1.70 26	6 0.49 8	97 4.22 65	2 0.05 1	0	164 2.69 42	99 2.06 33	55 1.55 24	1.8 0.03	0.9	0.92	--	414 377 110							
9N/ 1W-10D 2 S 12-31-64	--	8.0	730	71 3.54 46	12 0.99 13	73 3.17 41	2 0.05 1	0	248 4.06 51	114 2.37 30	52 1.47 19	1.3 0.02	0.5	0.17	--	443 448 227							
5-24-65	--	8.0	789	77 3.84 47	14 1.15 14	73 3.17 39	1 0.03	0	251 4.11 50	122 2.54 31	52 1.47 18	1.0 0.02	0.6	0.17	--	467 464 250							
9N/ 1W-10G 1 S 12-31-64	--	7.9	1826	149 7.44 36	21 1.73 8	256 11.13 54	5 0.13 1	0	461 7.56 37	417 8.68 43	131 3.69 18	15.5 0.25 1	0.8	0.58	--	1267 1222 459							
5-24-65	--	8.2	1560	116 5.79 34	23 1.89 11	210 9.13 54	4 0.10 1	12 0.40 2	369 6.05 36	343 7.14 42	109 3.07 18	10.5 0.17 1	0.8	0.50	--	1026 1010 384							

TABLE E-1  
ANALYSES OF GROUND WATER  
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million reactance value				Mineral constituents in parts per million			
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Fluoride	Boron	Silica	Total Hardness as CaCO <sub>3</sub>
Date sampled				Co	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	F	B	SiO <sub>2</sub>	Computed CaCO <sub>3</sub>
LOWER MOJAVE HYDRO SUBUNIT															
				W28E0											
				MOJAVE HYDRO UNIT											
				W2800											
9N/ 1W-13E 1 S 5-21-65	--	8.1	700	53 2.64 37	11 0.90 13	82 3.57 50	3 0.08 1	0	210 3.44 49	93 1.94 27	57 1.61 23	0.5	0.47	--	429 177 409
9N/ 1W-13H 1 S 12- 4-64	--	8.2	844	60 2.99 35	12 0.99 12	103 4.48 52	3 0.08 1	10 0.33 4	207 3.39 39	118 2.46 29	84 2.37 27	0.8	0.39	--	517 199 498
5-21-65	--	8.2	847	63 3.14 37	11 0.90 10	103 4.48 52	3 0.08 1	0	227 3.72 44	116 2.42 28	81 2.28 27	0.8	0.56	--	522 202 495
9N/ 1W-15N 2 S 5-21-65	--	7.7	1083	84 4.19 36	19 1.56 14	130 5.65 49	3 0.08 1	0	332 5.44 49	140 2.91 26	96 2.71 24	0.6	0.59	--	664 288 642
10N/ 1W-32J 1 S 12-31-64	--	7.7	727	66 3.29 44	11 0.90 12	74 3.22 43	3 0.08 1	0	240 3.93 52	111 2.31 31	44 1.24 17	0.7	0.14	--	372 210 430
5-24-65	--	8.2	736	67 3.34 44	11 0.90 12	75 3.26 43	3 0.08 1	5 0.17 2	232 3.80 49	118 2.46 32	44 1.24 16	0.7	0.16	--	441 212 440

TABLE E-1

ANALYSES OF GROUND WATER  
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent reactance value					Mineral constituents in parts per million									
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	Total Evap (80°C) Hardness as CaCO <sub>3</sub>							
TROY HYDRO SUBUNIT				MOJAVE HYDRO UNIT																			
TROY HYDRO SUBAREA				W28F0					W28F2										W2800				
8N/ 4E- 7B 1 S 6-14-65	--	7.5	2375	168 8.38 33	65 5.35 21	266 11.57 45	8 0.20 1	0	198 3.25 13	549 11.43 45	370 10.43 41	19.0 0.31 1	1.6	4.20	--	1655 1548	687						
8N/ 4E- 7B 2 S 6-14-65	--	8.4	848	29 1.45 17	9 0.74 9	145 6.30 74	3 0.08 1	12 0.40 5	176 2.88 34	135 2.81 34	81 2.28 27	0	1.6	1.38	--	502 503	110						
9N/ 3E-36F 1 S 2- 5-65	--	7.4	3291	232 11.58 33	40 3.29 9	464 20.17 57	2 0.05	0	230 3.77 11	731 15.22 43	555 15.65 44	33 0.53 2	0.8	5.50	--	2266 2176	744						

TABLE E-1  
ANALYSES OF GROUND WATER  
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent reactance value					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Berel- ite B	Silica SiO <sub>2</sub>	TDS Evap Resid- ues (25°C) Computer Calc		
LUCERNE HYDRO UNIT																		
X0100																		
3N/ 1E- 3F 1 S 3- 5-65	--	7.9	432	44 2.20 48	20 1.64 36	17 0.74 16	1 0.03 1	0	237 3.88 83	23 0.48 10	9 0.25 5	3.1 0.05 1	0.8	0.04	--	252 234	192	
4N/ 1E- 1R 2 S 3- 4-65	--	7.9	1145	24 1.20 11	6 0.49 5	205 8.91 83	5 0.13 1	0	129 2.11 20	250 5.21 48	121 3.41 32	2.3 0.04	0.3	1.55	--	698 679	85	
4N/ 1E- 6H 1 S 3- 3-65	--	7.7	594	56 2.79 44	21 1.73 28	39 1.70 27	2 0.05 1	0	193 3.16 51	112 2.33 38	23 0.65 11	2.5 0.04 1	0.5	0.05	--	392 351	226	
4N/ 1E- 6Q 1 S 3- 3-65	--	7.5	971	93 4.64 48	36 2.96 31	47 2.04 21	2 0.05 1	0	164 2.69 27	166 3.46 35	126 3.55 36	9.1 0.15 2	0.6	0.09	--	702 560	380	
4N/ 1E- 9A 1 S 3- 4-65	--	7.5	549	55 2.74 48	19 1.56 28	30 1.30 23	2 0.05 1	0	124 2.03 36	143 2.98 53	22 0.62 11	1.4 0.02	0.7	0.05	--	357 334	215	
4N/ 1E-12P 2 S 3- 4-65	--	7.6	804	46 2.30 29	35 2.88 37	58 2.52 32	4 0.10 1	0	120 1.97 25	142 2.96 38	100 2.82 36	5.7 0.09 1	0.5	0.07	--	576 450	259	
4N/ 1E-32A 1 S 3- 5-65	--	8.1	608	39 1.95 30	21 1.73 27	58 2.52 39	12 0.31 5	24 0.80 11	278 4.56 64	62 1.29 18	18 0.51 7	0.1	0.6	0.18	--	349 371	184	
4N/ 2E- 7N 1 S 3- 4-65	--	7.7	1201	81 4.04 33	43 3.54 29	104 4.52 37	6 0.15 1	0	100 1.64 13	301 6.27 52	150 4.23 35	1.2 0.02	1.0	0.24	--	805 737	379	

TABLE E-1  
ANALYSES OF GROUND WATER  
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million reactance value					Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	TDS Evap 180°C Residues Evap 105°C as CaCl <sub>2</sub>		
LUCERNE HYDRO UNIT																		
X0100																		
4N/ 2E-17B 1 S 3- 4-65	--	7.8	617	40 2.00 34	18 1.48 25	55 2.39 40	3 0.08 1	0	129 2.11 35	96 2.00 33	46 1.30 22	36.0 0.58 10	0.9	0.06	--	367 358	174	
5N/ 1E-17C 2 S 3- 4-65	--	7.4	5110	224 11.18 22	17 1.40 3	868 37.74 75	11 0.28 1	0	81 1.33 3	678 14.12 28	1240 34.97 69	0.0	2.9	5.00	--	3184 3086	630	
5N/ 1E-23C 1 S 3- 4-65	--	7.7	15250	479 23.90 15	41 3.37 2	3120 135.66 83	32 0.82 1	0	83 1.36 1	1197 24.92 15	4850 136.77 84	1.8 0.03	9.0	14.28	--	10140 9785	1365	
5N/ 1E-28A 1 S 3- 4-65	--	7.9	4227	152 7.58 19	11 0.90 2	730 31.74 78	13 0.33 1	0	100 1.64 4	503 10.47 26	1020 28.76 70	1.5 0.02	4.9	2.70	--	2551 2487	424	
5N/ 1E-29N 1 S 3- 4-65	--	7.5	813	73 3.64 47	27 2.22 28	44 1.91 24	2 0.05 1	0	146 2.39 31	65 1.35 17	141 3.98 51	2.7 0.04 1	0.3	0.04	--	539 427	293	
5N/ 1E-31F 1 S 3- 4-65	--	7.9	1043	97 4.84 44	44 3.62 33	55 2.39 22	3 0.08 1	0	200 3.28 31	181 3.77 35	128 3.61 34	1.0 0.02	0.5	0.20	--	728 608	423	
5N/ 1E-32P 1 S 3- 3-65	--	7.4	1811	137 6.84 35	57 4.69 24	188 8.17 41	3 0.08 1	0	322 5.28 27	407 8.47 43	198 5.58 28	28.0 0.45 2	0.5	0.50	--	1266 1177	577	
5N/ 1E-32R 1 S 3- 3-65	--	7.9	594	48 2.40 39	20 1.64 27	46 2.00 33	2 0.05 1	0	124 2.03 34	154 3.21 53	27 0.76 13	0.7 0.01	0.6	0.08	--	414 359	202	



**TABLE E-1**  
ANALYSES OF GROUND WATER  
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per percent reactance value				Mineral constituents in parts per million				
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fuo- ride F	Boron B	SiO <sub>2</sub>	TDS Evap. 105°C Evap. 180°C Computer CaCO <sub>3</sub>	
LUCERNE HYDRO UNIT																	
X0100																	
4N/ 1W- 1P 2 S 3- 3-65	--	7.5	1195	120 5.99 46	57 4.69 36	49 2.13 17	3 0.08 1	0	0	166 2.72 21	294 6.12 47	124 3.50 27	37 0.60 5	0.5	0.03	--	534
4N/ 1W-11N 2 S 3- 3-65	--	7.9	375	25 1.25 30	23 1.89 46	21 0.91 22	3 0.08 2	0	0	195 3.20 80	27 0.56 14	6 0.17 4	3.9 0.06 2	0.2	0.02	--	157
4N/ 1W-11Q 1 S 3- 3-65	--	7.4	873	79 3.94 41	42 3.45 36	52 2.26 23	1 0.03	0	0	391 6.41 66	112 2.33 24	27 0.76 8	16.0 0.26 3	0.5	0.07	--	370
4N/ 1W-14Q 4 S 3- 3-65	--	7.7	436	46 2.30 50	20 1.64 36	14 0.61 13	2 0.05 1	0	0	234 3.84 83	27 0.56 12	5 0.14 3	3.8 0.06 1	0.2	0.02	--	197
4N/ 1W-18E 1 S 3- 3-65	--	7.8	1286	52 2.59 19	23 1.89 14	200 8.70 65	6 0.15 1	0	0	210 3.44 26	418 8.70 66	37 1.04 8	1.7 0.03 3	1.7	0.63	--	224
6N/ 1W- 5J 1 S 4- 6-65	--	7.8	1494	5 0.25 2	2 0.16 1	315 13.70 95	13 0.33 2	0	0	658 10.78 79	61 1.27 9	58 1.64 12	2.5 0.04	6.0	1.30	--	21
																	787

TABLE E-1

ANALYSES OF GROUND WATER  
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent					Mineral constituents in parts per million				
				Calcium	Magne-sium	Sodium	Potas-sium	Carbon-ate	Bicar-bonate	Sulfate	Chlo-ride	Ni-trate	Fluo-ride	Boron	Sili-ca	TDS Exap-105°C as CaCO <sub>3</sub>		
Date sampled				Co	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>	Total hardness as CaCO <sub>3</sub>		
JOHNSON HYDRO UNIT																		
X0200																		
4N/ 2E-25JS1 S 3- 5-65	--	7.6	769	71 3.54 45	22 1.81 23	56 2.43 31	6 0.15 2	0	149 2.44 31	226 4.71 59	29 0.82 10	0.4 0.01	0.5	0.14	--	503 484		
4N/ 3E-23G 1 S 3- 5-65	--	7.5	134	96 4.79 33	70 5.76 39	90 3.91 27	6 0.15 1	0	134 2.20 15	415 8.64 59	131 3.69 25	4.2 0.07	0.6	0.15	--	938 879 528		
4N/ 4E-19M 1 S 3- 5-65	--	7.7	1740	105 5.24 31	79 6.50 38	121 5.26 31	6 0.15 1	0	122 2.00 11	210 4.37 25	395 11.14 63	6.4 0.10 1	1.2	0.19	--	1175 984 587		

**TABLE E-1**  
ANALYSES OF GROUND WATER  
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million						
				Calcium	Magne- sium	Sodium	Potas- sium	Carbon- ate	Bicar- bonate	Sulfate	Chlor- ide	Ni- trate	Fuo- ride	Boron	SiO <sub>2</sub>	Total Hardness as CaCO <sub>3</sub>
Date sampled				Co	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	co	TDS Evap (80°C) as CaCO <sub>3</sub> Computed
LUCERNE HYDRO UNIT																
X0100																
4N/ 1W- 1P 2 S 3- 3-65	--	7.5	1195	120 5.99 46	57 4.69 36	49 2.13 17	3 0.08 1	0	166 2.72 21	294 6.12 47	124 3.50 27	37 0.60 5	0.5	0.03	--	930 766 534
4N/ 1W-11N 2 S 3- 3-65	--	7.9	375	25 1.25 30	23 1.89 46	21 0.91 22	3 0.08 2	0	195 3.20 80	27 0.56 14	6 0.17 4	3.9 0.06 2	0.2	0.02	--	231 205 157
4N/ 1W-11Q 1 S 3- 3-65	--	7.4	873	79 3.94 41	42 3.45 36	52 2.26 23	1 0.03 2	0	391 6.41 66	112 2.33 24	27 0.76 8	16.0 0.26 3	0.5	0.07	--	571 522 370
4N/ 1W-14Q 4 S 3- 3-65	--	7.7	436	46 2.30 50	20 1.64 36	14 0.61 13	2 0.05 1	0	234 3.84 83	27 0.56 12	5 0.14 3	3.8 0.06 1	0.2	0.02	--	270 233 197
4N/ 1W-18E 1 S 3- 3-65	--	7.8	1286	52 2.59 19	23 1.89 14	200 8.70 65	6 0.15 1	0	210 3.44 26	418 8.70 66	37 1.04 8	1.7 0.03 3	1.7	0.63	--	939 843 224
6N/ 1W- 5J 1 S 4- 6-65	--	7.8	1494	5 0.25 2	2 0.16 1	315 13.70 95	13 0.33 2	0	658 10.78 79	61 1.27 9	58 1.64 12	2.5 0.04	6.0	1.30	--	817 787 21

TABLE E-1

ANALYSES OF GROUND WATER  
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million reactance value				Mineral constituents in parts per million					
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	TDS Evap 180°C Evap 105°C Computed CaCO <sub>3</sub>	
4N/ 2E-25JS1 S 3- 5-65	--	7.6	769	71 3.54 45	22 1.81 23	56 2.43 31	6 0.15 2	0	149 2.44 31	226 4.71 59	29 0.82 10	0.4 0.01	0.5	0.14	--	503 484	268
4N/ 3E-23G 1 S 3- 5-65	--	7.5	134	96 4.79 33	70 5.76 39	90 3.91 27	6 0.15 1	0	134 2.20 15	415 8.64 59	131 3.69 25	4.2 0.07	0.6	0.15	--	938 879	528
4N/ 4E-19M 1 S 3- 5-65	--	7.7	1740	105 5.24 31	79 6.50 38	121 5.26 31	6 0.15 1	0	122 2.00 11	210 4.37 25	395 11.14 63	6.4 0.10 1	1.2	0.19	--	1175 984	587
JOHNSON HYDRO UNIT																	
X0200																	

TABLE E-1  
ANALYSES OF GROUND WATER  
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent reactance value				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluor- ide F	Boron B	Sili- ca SiO <sub>2</sub>	TDS Evap. Residue as Calculated	Total Hardness as Calculated
EMERSON HYDRO UNIT																	
X0500																	
1N/ 5E-19G 1 S 11- 9-64	--	7.4	360	33 1.65 40	2 0.16 4	52 2.26 55	2 0.05 1	0	175 2.87 69	27 0.56 13	20 0.56 13	12 0.19 5	1.0	0.33	--	262 235	91
2N/ 6E- 6D 2 S 11-11-64	--	7.9	370	32 1.60 38	4 0.33 8	51 2.22 53	2 0.05 1	0	153 2.51 59	41 0.85 20	27 0.76 18	6 0.10 2	0.2	0.09	--	262 238	97
2N/ 6E- 7Q 1 S 11-11-64	--	7.8	420	41 2.05 43	7 0.58 12	47 2.04 43	3 0.08 2	0	168 2.75 57	43 0.90 19	39 1.10 23	4 0.06 1	0.4	0.07	--	280 267	132
2N/ 6E-18J 1 S 11-11-64	--	7.8	300	25 1.25 38	2 0.16 5	41 1.78 54	3 0.08 2	0	125 2.05 63	30 0.62 19	18 0.51 16	3 0.05 2	0.6	0.09	--	212 184	71



TABLE E-1  
ANALYSES OF GROUND WATER  
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in					parts per million		Mineral constituents in parts per million						
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Borates B	Silica SiO <sub>2</sub>	Evaporates Excl. SO <sub>4</sub> and CO <sub>3</sub>	
DEADMAN HYDRO UNIT																	
X0700																	
2N/ 7E- 3A 1 S 11-10-64	80	7.5	260	9 0.45	2 0.16	47 2.04	2 0.05	0	83 1.36	30 0.62	23 0.65	4 0.06	0.8	0.12	--	182	31
2N/ 7E- 3B 1 S 11-10-64	80	7.9	298	12 0.60	0 0.60	46 2.00	3 0.08	0	75 1.23	36 0.75	24 0.68	6 0.10	0.7	0.05	18	159	30
				22		75	3		45	27	25	4				183	

**TABLE E-1**  
**ANALYSES OF GROUND WATER**  
**COLORADO RIVER BASIN DRAINAGE PROVINCE (X)**

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					Mineral constituents in parts per million					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fuo- ride F	Boron B	Sili- co SiO <sub>2</sub>	TDS Evap 105°C Evap 180°C Computed CaCO <sub>3</sub>	Total hardness as CaCO <sub>3</sub>	
WARREN HYDRO SUBUNIT				JOSHUA TREE HYDRO UNIT										X0800				
X08A0																		
1S/ 5E- 2C 1 S 11- 9-64	67	7.9	250	19 0.95 33	7 0.58 20	31 1.35 46	1 0.03 1	0	126 2.07 73	13 0.27 10	12 0.34 12	10 0.16 6	0.2	0.07	--	172 155	77	
1N/ 5E-35P 1 S 11-12-64	--	7.8	240	25 1.25 47	2 0.16 6	28 1.22 46	1 0.03 1	0	119 1.95 75	13 0.27 10	9 0.25 10	8 0.13 5	0.2	0.07	--	176 145	71	
1N/ 6E-29F 1 S 11-12-64	68	8.1	240	9 0.45 17	1 0.08 3	49 2.13 79	1 0.03 1	0	120 1.97 72	13 0.27 10	13 0.37 14	8 0.13 5	1.0	0.09	--	194 154	27	
1N/ 6E-29N 1 S 11-12-64	70	7.7	240	24 1.20 46	2 0.16 6	28 1.22 47	1 0.03 1	0	116 1.90 74	10 0.21 8	12 0.34 13	8 0.13 5	0.4	0.07	--	180 142	68	

TABLE E-1

ANALYSES OF GROUND WATER  
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million reactance value					Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	TDS Evaporated Evaporated or Computed CaCO <sub>3</sub>	Total hardness as CaCO <sub>3</sub>	
COPPER MOUNTAIN HYDRO SUBUNIT X08B0																		
JOSHUA TREE HYDRO UNIT X0800																		
1N/ 6E-25N 1 S 11-11-64	--	7.7	230	18 0.90 34	4 0.33 12	32 1.39 52	2 0.05 2	0	114 1.87 73	12 0.25 10	10 0.28 11	9 0.15 6	0.6	0.07	--	172 144	62	
1N/ 7E-10N 1 S 11-11-64	64	7.7	230	17 0.85 34	1 0.08 3	35 1.52 61	1 0.03 1	0	118 1.93 78	8 0.17 7	7 0.20 8	12 0.19 8	0.4	0.09	--	172 139	47	

**TABLE E-1**  
**ANALYSES OF GROUND WATER**  
**COLORADO RIVER BASIN DRAINAGE PROVINCE (X)**

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million		Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Sulfide	Other
Date sampled				Cc	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	S <sub>2</sub> O <sub>3</sub>	Other
DALE HYDRO UNIT														
X0900														
1N/ 8E- 9L 1 S 11-10-64	--	7.7	810	46 2.30 24	17 1.40 14	135 5.87 61	4 0.10 1	0	170 2.79 29	248 5.16 54	53 1.49 16	10 0.16 2	0.17	578 599
1N/ 8E-36A 1 S 11-10-64	77	7.7	240	13 0.65 26	2 0.16 6	39 1.70 67	1 0.03 1	0	109 1.79 73	14 0.29 12	9 0.25 10	8 0.13 5	0.09	156 141
1N/ 9E-20A 1 S 11-10-64	--	8.0	540	16 0.80 13	2 0.16 3	116 5.04 83	3 0.08 1	0	209 3.43 57	82 1.71 28	30 0.85 14	2 0.03 0	2.04	360 361
1N/ 9E-31A 1 S 11-10-64	77	7.7	220	12 0.60 25	2 0.16 7	38 1.65 68	1 0.03 1	0	116 1.90 79	6 0.12 5	11 0.31 13	5 0.08 3	0.07	178 133
1N/ 9E-31C 1 S 11-10-64	77	7.6	255	14 0.70 26	2 0.16 6	42 1.83 67	1 0.03 1	0	117 1.92 73	9 0.19 7	14 0.39 15	8 0.13 5	0.07	164 149

TABLE E-1

ANALYSES OF GROUND WATER  
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in				parts per million equivalents per million reactance value				Mineral constituents in parts per million			
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlor- ide Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Sulf- ate SO <sub>4</sub>	Total Evap Resid- ue Expressed as Percent CaCl <sub>2</sub>
DALE HYDRO SUBUNIT															
X0980				DALE HYDRO UNIT											
X0900															
1N/10E-14N 2 S 11-10-64	--	7.9	1960	20 1.00 5	7 0.58 3	470 20.44 92	6 0.15 1	0	117 1.92 9	595 12.39 59	235 6.63 32	1 0.02	5.6	2.16	1490 1399
1N/10E-22J 1 S 11-10-64	--	8.1	1940	20 1.00 5	6 0.49 2	445 19.35 92	5 0.13 1	0	132 2.16 10	588 12.24 59	228 6.43 31	1 0.02	5.2	0.40	1372 1364



TABLE E-1

## ANALYSES OF GROUND WATER

COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per percent		Mineral constituents in parts per million							
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	TDS Evap Residue Evap Residue as CaCO <sub>3</sub> Computed CaCO <sub>3</sub>		
FENNER HYDRO SUBUNIT				BRISTOL HYDRO UNIT										X1000				
X1080				X1000														
10N/14E-26L 1 S 11-12-64	--	7.4	208	20 1.00 47	3 0.25 12	19 0.83 39	2 0.05 2	0	69 1.13 53	31 0.65 30	13 0.37 17	0.0	0.6	0.22	--	133 123 63		

TABLE E-1

ANALYSES OF GROUND WATER  
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per percent		million reactance value		Mineral constituents in parts per million					
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Silica SiO <sub>2</sub>	Hardness Equiv 100°C Equiv 105°C Compute	Ca		
MORONGO HYDRO SUBUNIT																		
				X19A0														
WHITEWATER HYDRO UNIT																		
				X1900														
1S/ 4E-13P 1 S 11- 9-64	--	7.9	820	65 3.24 34	32 2.63 28	80 3.48 37	6 0.15 2	0	317 5.20 54	161 3.35 35	34 0.96 10	6 0.10 1	0.4	0.12	--	564 540	294	
1S/ 4E-13Q 1 S 11- 9-64	--	7.7	1180	89 4.44 32	62 5.10 37	95 4.13 30	9 0.23 2	0	216 3.54 25	438 9.12 65	47 1.33 9	7 0.11 1	0.4	0.10	--	872 854	477	
1S/ 4E-22J 1 S 11- 9-64	--	8.0	600	57 2.84 40	12 0.99 14	73 3.17 44	6 0.15 2	0	267 4.38 61	102 2.12 30	23 0.65 9	0.0	0.4	0.07	--	416 405	192	
1S/ 5E- 7F 1 S 11- 9-64	--	7.9	840	76 3.79 36	13 1.07 10	130 5.65 53	4 0.10 1	0	194 3.18 30	284 5.91 55	54 1.52 14	3 0.05 0	0.6	0.14	--	724 660	243	

TABLE E-1

## ANALYSES OF GROUND WATER

COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reactance value				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlor- ide Cl	Ni- trate NO <sub>3</sub>	Flu- oride F	Boron B	Sili- ca SiO <sub>2</sub>	TDS Evap- orated as CaCO <sub>3</sub> Computed	
SAN GORGONIO HYDRO SUBUNIT X19C0																	
SAN GORGONIO HYDRO SUBAREA X19C2																	
2S/ 1E-17L 1 S 4- 9-65	--	7.8	332	37 1.85 52	15 1.23 35	9 0.39 11	3 0.08 2	--	170 2.79 79	25 0.52 15	8 0.23 6	0	0.5	0	--	212 181	154
2S/ 1E-33J 1 S 4- 9-65	--	7.8	344	42 2.10 58	13 1.07 29	9 0.39 11	3 0.08 2	--	179 2.93 79	24 0.50 14	9 0.25 7	1 0.02 1	0.4	0	--	207 189	159
3S/ 1E- 7E 1 S 4- 4-65	--	8.0	398	42 2.10 50	12 0.99 24	24 1.04 25	2 0.05 1	--	212 3.47 83	9 0.19 5	16 0.45 11	3 0.05 1	0.3	0	--	238 213	155
3S/ 3E- 8M 1 S 5- 5-65	70	7.8	361	36 1.80 50	9 0.74 21	23 1.00 28	2 0.05 1	0	176 2.88 78	14 0.29 8	17 0.48 13	3.4 0.05 1	0.5	0	--	215 191	127
WHITEWATER HYDRO UNIT X1900																	

TABLE C-1  
ANALYSES OF GROUND WATER  
COLORADO RIVER BASIN PROVINCE (X)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million percent reactance value					Mineral constituents in parts per million				
				Calcium Co	Magne-sium Mg	Sodium Na	Potas-sium K	Carbon-ate CO <sub>3</sub>	Bicar-bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo-ride Cl	Ni-trate NO <sub>3</sub>	Fluo-ride F	Boron B	Sili-co SiO <sub>2</sub>	TDS Excl. 180°C Excl. 105°C or Computed Total		
COACHELLA HYDRO SUBUNIT																		
GARNET HILL HYDRO SUBAREA																		
X19D0				X19D1														
3S/ 4E-22A 2 S 5- 5-65	68	8.2	374	7 0.35 10	0	3.00 87	0.08 2	3	0	102 1.67 47	63 1.31 37	20 0.56 16	0.4	0.03	--	214 213	18	
3S/ 5E-30G 1 S 4- 4-65	80	7.8	1225	58 2.89 20	10 0.82 6	245 10.65 73	11 0.28 2	0	0	185 3.03 21	450 9.37 65	66 1.86 13	1.4	0.30	--	868 936	186	
4- 5-65	--	7.7	1379	55 2.74 21	12 0.99 7	220 9.57 72	--	--	0	173 2.84 21	412 8.58 64	67 1.89 14	1.4	--	--	861 860	187	
MISSION CREEK HYDRO SUBAREA				X19D2														
3S/ 5E-17M 1 S 5- 5-65	80	8.0	1330	61 3.04 23	12 0.99 8	204 8.87 68	9 0.23 2	9	0	110 1.80 14	421 8.77 69	77 2.17 17	2.1	0.51	--	849 841	202	
3S/ 5E-18M 1 S 5- 5-65	74	8.1	671	43 2.15 32	13 1.07 16	78 3.39 50	7 0.18 3	7	0	149 2.44 36	178 3.71 55	20 0.56 8	1.2	0.05	--	420 413	161	
3S/ 5E-18R 1 S 5- 5-65	80	8.0	1155	78 3.89 33	18 1.48 13	139 6.04 52	10 0.26 2	10	0	103 1.69 15	398 8.29 72	54 1.52 13	0.8	0.08	--	774 749	269	
3S/ 5E-20D 1 S 5- 5-65	76	7.8	1070	69 3.44 32	19 1.56 15	125 5.44 51	9 0.23 2	9	0	98 1.61 15	365 7.60 72	48 1.35 13	1.1	0.08	--	703 685	250	

**TABLE E-1**  
ANALYSES OF GROUND WATER  
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent		Mineral constituents in parts per million									
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fus- sile F	Bor- on B	Sul- fur S	TDS Evap. 180°C Evap. 105°C Computed CaCO <sub>3</sub>	Total Hardness Evap. 105°C Evap. 180°C Computed CaCO <sub>3</sub>		
COACHELLA HYDRO SUBUNIT																			
MIRACLE HILL HYDRO SUBAREA				X19D0				X19D3				X1900							
2S/ 5E-30L 1 S 5- 5-65	106	7.8	1552	37 1.85 13	0	285 12.39 86	0.13 0.13 1	5	0	51 0.84 6	485 10.10 70	119 3.36 23	2.1 0.03	5.0	1.04	--	985 964		
2S/ 5E-30L 2 S 5- 5-65	78	8.0	1584	47 2.35 15	5 0.41 3	285 12.39 81	0.15 0.15 1	6	0	107 1.75 12	472 9.83 66	116 3.27 22	1.2 0.02	4.6	0.87	--	1010 990		
3S/ 5E-10J 1 S 5- 5-65	78	7.9	1720	47 2.35 14	4 0.33 2	315 13.70 83	7 0.18 1	7	0	51 0.84 5	524 10.91 69	143 4.03 26	0	8.2	1.54	--	1080 1075		
THOUSAND PALMS HYDRO SUBAREA				X19D6															
4S/ 6E-5M 1 S 4-12-65	--	7.5	1259	62 3.09 25	26 2.14 17	156 6.78 55	12 0.31 3	12	0	93 1.52 12	430 8.95 72	66 1.86 15	4 0.06	1.6	0.22	--	840 804		
INDIO HYDRO SUBAREA				X19D7															
3S/ 4E-36M 1 S 4-12-65	73	8.1	401	50 2.50 59	11 0.90 21	17 0.74 18	3 0.08 2	3	--	201 3.29 80	23 0.48 12	10 0.28 7	3 0.05	0.7	0	--	136 217		
4S/ 4E-1N 2 S 4-12-65	73	8.0	320	37 1.85 56	8 0.66 20	17 0.74 22	2 0.05 2	2	--	165 2.70 82	13 0.27 8	10 0.28 9	2 0.03	0.6	0	--	101 171		



TABLE E-1

ANALYSES OF GROUND WATER  
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number		Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million				Mineral constituents in parts per million					
Date sampled	Calcium Co				Magne-sium Mg	Sodium Na	Potas-sium K	Carbon-ate CO <sub>3</sub>	Bicar-bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo-ride Cl	Ni-trate NO <sub>3</sub>	Fuo-ride F	Boron B	Silica SiO <sub>2</sub>	I.D.S. Evap. 800°C Evap. 1050°C Computed CaCO <sub>3</sub>	Total hardness as CaCO <sub>3</sub>	
COACHELLA HYDRO SUBUNIT INDIO HYDRO SUBAREA																		
X19D0					X19D7													
WHITEWATER HYDRO UNIT																		
X1900																		
4S/ 4E-11K 1 S 4-12-65	73	7.9	495	59 2.94 60	9 0.74 15	26 1.13 23	0.08 2	3 2	--	170 2.79 57	65 1.35 27	20 0.56 11	0.3 5	0.16	--	201 280	184	
4S/ 4E-11Q 1 S 4-12-65	73	8.2	315	54 2.69 58	7 0.58 12	29 1.26 27	0.13 3	5 3	--	206 3.38 72	41 0.85 18	14 0.39 8	0.3 1	0.04	--	204 256	164	
4S/ 5E-15R 1 S 4-12-65	--	7.8	320	41 2.05 62	6 0.49 15	15 0.65 20	4 0.10 3	4 3	0	159 2.61 79	23 0.48 15	6 0.17 5	0.7 2	0.02	--	172 177	127	
4S/ 5E-33G 1 S 4-14-65	--	7.6	486	60 2.99 62	9 0.74 15	24 1.04 21	3 0.08 2	3 2	0	171 2.80 57	62 1.29 26	19 0.54 11	0.3 5	0.05	--	295 277	187	
6S/ 8E- 5N 1 S 4-14-65	--	7.6	254	17 0.85 36	1 0.08 3	31 1.35 57	3 0.08 3	3 3	0	101 1.66 69	24 0.50 21	8 0.23 10	0.7 1	0.04	--	140 136	47	

**TABLE E-1**  
ANALYSES OF GROUND WATER  
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million reagent value				Mineral constituents in parts per million						
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Bor- on B	Sul- fur S	IO <sub>3</sub> Exop IO <sub>3</sub> Compu <sub>3</sub>	Ad- dress Call	
Date sampled	BORREGO HYDRO SUBUNIT																	
	ANZA BORREGO HYDRO UNIT																	
X22A0				X22A1														
BORREGO HYDRO SUBAREA				TERWILLIGER HYDRO SUBAREA														
85/ 3E-12D 1 S 12- 2-64	--	7.8	979	100 4.99 49	26 2.14 21	67 2.91 29	3 0.08 1	0	273 4.47 44	129 2.69 26	97 2.74 27	17 0.27 3	0.7	0.06	64	714 638	357	

TABLE E-1

ANALYSES OF GROUND WATER  
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent reactance value				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Na- trate Na <sub>2</sub>	Ful- vate F	Ber- ber B	Sul- fate SO <sub>4</sub>	Iron Fe	Ex- posed as CaCO <sub>3</sub>
				IMPERIAL HYDRO SUBUNIT										X23AO			
				IMPERIAL HYDRO UNIT										X2300			
9S/12E-1D1S 10-27-64	--	8.0	1380	66 3.29 22	52 4.28 29	165 7.17 48	10 0.26 2	0	224 3.67 25	334 6.95 48	140 3.95 27	0.0	2.8	0.20	--	1050 880	379
9S/12E-2A1S 10-27-64	166	7.1	5000	117 5.84 10	47 3.87 7	1060 46.09 81	46 1.18 2	0	438 7.18 13	207 4.31 8	1574 44.39 79	0.0	2.6	5.00	--	3234 3274	486
9S/12E-22A1S 10-29-64	--	7.9	17500	311 15.52 6	388 31.91 13	4640 201.75 81	46 1.18	0	99 1.62 2	4502 93.73 98	0	0.6 0.01	0.6	0.08	--	15120 9937	2373
9S/13E-20LS1S 10-29-64	75	8.1	6000	124 6.19 10	41 3.37 5	1180 51.31 83	45 1.15 2	0	465 7.62 12	260 5.41 9	1720 48.50 79	0.0	2.8	4.00	--	3530 3605	478

**TABLE E-1**  
**ANALYSES OF GROUND WATER**  
**COLORADO RIVER BASIN DRAINAGE PROVINCE (X)**

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per percent reactance value					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	I.D.S. Exp. 180°C Exp. 105°C Computed	Total hardness at Calc.	
EAST SALTON SEA HYDRO UNIT X2500																		
8S/11E-12P 1 S 10-27-64	90	7.8	3200	38 1.90 5	27 2.22 6	700 30.44 88	0.10	4	0	234 3.84 11	144 3.00 9	968 27.30 80	0.0	3.0	2.75	--	1808 2002	206
8S/11E-12P 2 S 10-27-64	90	7.8	3500	60 2.99 8	15 1.23 3	740 32.18 88	0.10	4	0	214 3.51 10	152 3.16 9	1046 29.50 82	0.0	3.0	2.38	--	2122 2128	211
8S/11E-12P 1 S 10-27-64	90	7.8	3200	38 1.90 5	27 2.22 6	700 30.44 88	0.10	4	0	234 3.84 11	144 3.00 9	968 27.30 80	0.0	3.0	2.75	--	1808 2002	206
8S/11E-12P 2 S 10-27-64	90	7.8	3500	60 2.99 8	15 1.23 3	740 32.18 88	0.10	4	0	214 3.51 10	152 3.16 9	1046 29.50 82	0.0	3.0	2.38	--	2122 2128	211

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent				Mineral constituents in parts per million				Total Hardness as CaCO <sub>3</sub>		
				Calcium mg	Magnesium mg	Sodium mg	Potassium mg	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>		TDS Evap 180°C as CaCO <sub>3</sub> Computed	
SANTA ANA RIVER HYDRO UNIT Y0100																		
LOWER SANTA ANA RIV HYD SUBUNIT Y01A0																		
EAST COASTAL PLAIN HYDRO SUBAREA Y01A1																		
4S/ 9W- 2B 3 S 7-13-65	--	7.5	1200	108 5.39 43	28 2.30 18	109 4.74 38	5 0.13 1	0	3.39 27	291 6.06 48	107 3.02 24	4.3 0.07 1	0.6	0.12	--	794 755		
4S/ 9W- 7Q 5 S 10-13-64	66	7.6	1059	--	--	--	--	0	156 2.56	274 5.70	90 2.54	--	--	--	--			
4S/ 9W-19D 3 S 5-18-65	--	7.6	1098	95 4.74 42	47 3.87 34	57 2.48 22	5 0.13 1	0	240 3.93 36	216 4.50 41	85 2.40 22	15 0.24 2	0.6	0.06	--	743 639		431
4S/ 9W-22M 2 S 10-27-64	--	7.9	942	80 3.99 41	44 3.62 37	47 2.04 21	2 0.05 1	0	216 3.54 37	150 3.12 32	82 2.31 24	40 0.65 7	0	0.07	--	589 551		381
5-18-65	--	7.7	948	98 4.89 50	32 2.63 27	50 2.17 22	2 0.05 1	0	232 3.80 40	149 3.10 32	76 2.14 22	33 0.53 6	0.3	0.09	--	648 554		376
4S/ 9W-27F 1 S 10-21-64	70	7.7	997	--	--	--	--	0	239 3.92	205 4.27	67 1.89	--	--	--	--			
3-24-65	--	7.9	1040	107 5.34 51	39 3.21 30	45 1.96 19	2 0.05	0	215 3.52 34	197 4.10 40	72 2.03 20	38 0.61 6	0.4	0.06	--	638 606		428
4S/ 9W-28J 1 S 7-13-65	--	7.4	1090	119 5.94 52	42 3.45 30	45 1.96 17	2 0.05	0	256 4.20 37	191 3.98 35	82 2.31 21	47 0.76 7	0.4	0.04	--	731 654		470



TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					Mineral constituents in parts per million									
				Calcium	Magne- sium	Sodium	Potas- sium	Carbon- ate	Bicar- bonate	Sulfate	Chlo- ride	Ni- trate	Fluo- ride	Boron	Sili- ca	TDS	Total hardness as CaCO <sub>3</sub>	
Date sampled				Ca	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>	Computed		
SANTA ANA RIVER HYDRO UNIT Y0100																		
LOWER SANTA ANA RIV HYD SUBUNIT Y01A0																		
EAST COASTAL PLAIN HYDRO SUBAREA Y01A1																		
4S/ 9W-31B 1 S 7-13-65	--	7.8	582	65 3.24	11 0.90	34 1.48	2 0.05	0	211 3.46	51 1.06	37 1.04	9 0.15	0.5	0.04	--	329 313		
4S/ 9W-32B 2 S 12-16-64	--	7.6	776	86 4.29	17 1.40	45 1.96	3 0.08	0	222 3.64	92 1.92	62 1.75	20 0.32	0.5	0.06	--	450 435		
4S/10W-13H 2 S 5-18-65	--	7.4	1122	101 5.04	23 1.89	97 4.22	7 0.18	0	181 2.97	270 5.62	87 2.45	3 0.05	0.8	0.09	--	760 678		
4S/10W-14D 2 S 10-22-64	--	7.9	941	--	--	--	--	0	210 3.44	196 4.08	73 2.06	8.6 0.14	--	--	--	--		
4S/10W-14H 2 S 10-13-64	61	7.8	959	--	--	--	--	0	227 3.72	175 3.64	76 2.14	--	--	--	--	--		
3- 3-65	60	7.7	968	--	--	--	--	0	231 3.79	175 3.64	76 2.14	--	--	--	--	--		
4S/10W-15B 2 S 10-26-64	--	7.3	1030	114 5.69	27 2.22	59 2.57	5 0.13	0	213 3.49	216 4.50	88 2.48	12 0.19	0.6	0.07	--	634 626		
4S/10W-24D 2 S 10-13-64	--	7.6	1093	--	--	--	--	0	182 2.98	274 5.70	91 2.57	--	--	--	--	--		

TABLE E-1

## ANALYSES OF GROUND WATER

SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per percent reactance value					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	TDS Evap 180°C Evap 105°C Computed		
SANTA ANA RIVER HYDRO UNIT Y0100																		
LOWER SANTA ANA RIV HYD SUBUNIT Y01A0																		
EAST COASTAL PLAIN HYDRO SUBAREA Y01A1																		
4S/10W-24D 2 S 3- 3-65	--	7.6	1111	--	--	--	--	0	183 3.00	273 5.68	91 2.57	--	--	--	--	--	--	--
4S/10W-24D 3 S 7-13-65	--	7.6	943	114 5.69 58	22 1.81 18	52 2.26 23	4 0.10 1	0	189 3.10 31	218 4.54 46	75 2.12 21	7 0.11 1	0.6	0.04	--	620 586	375	--
4S/10W-25N 1 S 10-13-64	--	7.6	1027	--	--	--	--	0	171 2.80	258 5.37	89 2.51	--	--	--	--	--	--	--
3- 3-65	--	7.4	1037	--	--	--	--	0	171 2.80	262 5.45	89 2.51	--	--	--	--	--	--	--
4S/10W-31F 1 S 11-25-64	--	7.7	882	105 5.24 56	24 1.97 21	46 2.00 21	5 0.13 1	0	273 4.47 49	139 2.89 31	63 1.78 19	3.1 0.05 1	0.3	0.05	--	557 520	361	--
4S/10W-32Q 1 S 1-19-65	--	7.8	964	129 6.44 65	18 1.48 15	45 1.96 20	4 0.10 1	0	244 4.00 44	132 2.75 30	63 1.78 19	40 0.65 7	0.5	0.04	--	551 551	396	--
6-21-65	--	7.6	935	114 5.69 60	21 1.73 18	46 2.00 21	4 0.10 1	0	247 4.05 43	139 2.89 31	67 1.89 20	35 0.56 6	0.4	0.06	--	580 548	371	--
4S/10W-33F 1 S 10-7-64	--	8.0	1020	114 5.69 55	29 2.38 23	51 2.22 21	5 0.13 1	0	233 3.82 36	175 3.64 34	88 2.48 23	40 0.65 6	0.5	0.06	--	647 617	404	--

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent reactance value					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	TDS Evap Hardness Exp. O.S.C. Computed CaCO <sub>3</sub>		
LOWER SANTA ANA RIV HYD SUBUNIT YO1A0																		
EAST COASTAL PLAIN HYDRO SUBAREA YO1A1																		
SANTA ANA RIVER HYDRO UNIT YO100																		
4S/10W-33F 1 S 5-18-65	--	7.7	1074	130 6.49 58	27 2.22 20	54 2.35 21	5 0.13 1	0	240 3.93 36	197 4.10 38	82 2.31 21	35 0.56 5	0.5	0.04	--	746 436		
4S/10W-34C 1 S 7-13-65	--	7.5	943	119 5.94 61	20 1.64 17	48 2.09 21	4 0.10 1	0	215 3.52 36	179 3.73 38	73 2.06 21	25 0.40 4	0.6	0.04	--	649 597 379		
4S/10W-34N 1 S 12-16-64	--	7.6	1040	129 6.44 59	27 2.22 20	50 2.17 20	4 0.10 1	0	279 4.57 42	166 3.46 32	74 2.09 19	41 0.66 6	0.6	0.06	--	574 667 433		
5S/ 8W-31K 1 S 10-21-64	--	7.6	1882	--	--	--	--	0	305 5.00	--	184 5.19	--	--	--	--	629		
5S/ 8W-32L 1 S 10-27-64	79	7.2	1865	--	--	--	--	0	298 4.88	--	182 5.13	--	--	--	--	--		
5S/ 9W- 4D 1 S 1-18-65	--	7.8	424	26 1.30 30	3 0.25 6	62 2.70 63	2 0.05 1	0	168 2.75 68	44 0.92 23	13 0.37 9	0	0.5	0.08	--	221 233		
5S/ 9W- 5R 1 S 1-18-65	--	7.6	624	71 3.54 53	13 1.07 16	45 1.96 30	2 0.05 1	0	195 3.20 54	86 1.79 30	29 0.82 14	10 0.16 3	0.3	0.06	--	347 352		
6-21-65	--	7.5	635	63 3.14 49	14 1.15 18	48 2.09 33	2 0.05 1	0	205 3.36 53	87 1.81 29	35 0.99 16	11 0.18 3	0.2	0.04	--	375 361		

## ANALYSES OF GROUND WATER

## SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				Mineral constituents in parts per million					
				Calcium mg Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	Total I.O.S. Exop.180°C Exop.105°C as CaCO <sub>3</sub>	
LOWER SANTA ANA RIV HYD SUBUNIT Y01A0																	
EAST COASTAL PLAIN HYDRO SUBAREA Y01A1																	
5S/ 9W-14Q 2 S 10-27-64	81	7.4	1753	--	--	--	--	0	303 4.97	384 7.99	179 5.05	--	--	--	--	--	--
5- 4-65	--	7.6	1848	--	--	--	--	0	311 5.10	398 8.29	182 5.13	--	--	--	--	--	--
5S/ 9W-15J 1 S 2-17-65	79	7.6	840	--	--	--	--	0	234 3.84	126 2.62	67 1.89	--	--	--	--	--	--
5S/ 9W-16Q 2 S 6-21-65	--	7.5	872	115 5.74 63	16 1.32 14	47 2.04 22	2 0.05 1	0	245 4.02 44	136 2.83 31	62 1.75 19	27 0.44 5	0.3	0.08	--	535 526	353
5S/ 9W-21B 1 S 2-17-65	77	7.6	673	54 2.69 39	14 1.15 17	71 3.09 44	1 0.03	0	220 3.61 53	107 2.23 33	30 0.85 12	8 0.13 2	0.2	0.17	23	415 416	192
5S/ 9W-24H 1 S 10-21-64	--	7.7	1848	--	--	--	--	0	314 5.15	--	193 5.44	--	--	--	--	--	--
5- 4-65	--	7.9	1900	--	--	--	--	0	317 5.20	--	193 5.44	--	--	--	--	--	--
5S/ 9W-25E 1 S 2-17-65	78	7.6	1129	--	--	--	--	0	353 5.79	--	69 1.95	--	--	--	--	--	--

**TABLE E-1**  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in							parts per million equivalents per percent reactance value				Mineral constituents in parts per million				
				Calcium	Magne- sium	Sodium	Potas- sium	Carbon- ate	Bicar- bonate	Sulfate	Chlo- ride	Ni- trate	Fuc- tide	Boron	Sol- co	TDS, Evap 180°C, Evap 450°C as CaCO <sub>3</sub>			
Date sampled				Co	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>				
SANTA ANA RIVER HYDRO UNIT Y0100																			
LOWER SANTA ANA RIV HYD SUBUNIT Y01A0																			
EAST COASTAL PLAIN HYDRO SUBAREA Y01A1																			
5S/ 9W-30J 3 S 8-31-65	--	7.6	2230	295 14.72 56	71 5.84 22	134 5.83 22	4 0.10	0	215 3.52 14	807 16.80 65	167 4.71 18	46 0.74 3	0.7	0.04	--	1757 1630			
5S/ 9W-30J 4 S 6-23-65	66	8.1	718	56 2.79 38	21 1.73 24	61 2.65 37	3 0.08 1	0	143 2.34 32	159 3.31 46	57 1.61 22	0	0.5	0.15	--	473 428			
5S/ 9W-31B 1 S 1-18-65	--	7.6	424	27 1.35 32	4 0.33 8	57 2.48 59	2 0.05 1	0	161 2.64 66	50 1.04 26	12 0.34 8	0	0.3	0.09	--	243 231			
5-17-65	--	7.7	542	35 1.75 32	10 0.82 15	64 2.78 51	2 0.05 1	0	181 2.97 54	92 1.92 35	20 0.56 10	0.6 0.01	0.4	0.12	--	335 313			
6-23-65	67	8.2	387	20 1.00 25	6 0.49 12	55 2.39 61	2 0.05 1	0	187 3.06 76	19 0.40 10	20 0.56 14	2 0.03 1	0.3	0.17	--	236 216			
5S/ 9W-32A 1 S 10-21-64	--	8.4	433	--	--	--	--	10 0.33	156 2.56	--	16 0.45	--	--	--	--	--			
2-17-65	--	7.9	764	55 2.74 36	13 1.07 14	85 3.70 49	1 0.03	0	178 2.92 38	149 3.10 40	61 1.72 22	0	0.5	0.15	18	472 470			
7- 6-65	68	7.7	2796	71 3.54 13	21 1.73 7	479 20.83 79	6 0.15 1	0	351 5.75 22	0	737 20.78 78	0	0.4	1.24	--	1526 1488			



TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent reactance value					Mineral constituents in parts per million				
				Calcium mg	Magnesium mg	Sodium mg	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Barium	Silica	Silica	Evaporates	Evaporates
Date sampled				Ca	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>	SiO <sub>2</sub>	Ca	Ca
SANTA ANA RIVER HYDRO UNIT																		
YO100																		
LOWER SANTA ANA RIV HYD SUBUNIT YO1A0																		
EAST COASTAL PLAIN HYDRO SUBAREA YO1A1																		
5S/ 9W-34J 1 S 2-17-65	84	7.6	770	--	--	--	--	0	244 4.00	--	66 1.86	--	--	--	--	--	--	--
5S/ 9W-34J 2 S 10-21-64	--	7.8	1196	--	--	--	--	0	362 5.93	--	74 2.09	--	--	--	--	--	--	--
5- 4-65	--	8.0	1255	--	--	--	--	0	364 5.97	--	75 2.12	--	--	--	--	--	--	--
5S/ 9W-34Q 1 S 2-17-65	86	7.7	951	--	--	--	--	0	209 3.43	--	157 4.43	--	--	--	--	--	--	--
5S/ 9W-35J 1 S 2-16-65	--	7.8	1040	74 3.69	27 2.22	106 4.61	4 0.10	0	303 4.97	180 3.75	73 2.06	2 0.03	0.5	0.07	--	--	670 296	615
6-21-65	--	7.8	1220	79 3.94	29 2.38	115 5.00	4 0.10	0	301 4.93	190 3.96	80 2.26	3 0.05	0.4	0.14	--	--	670 316	649
5S/ 9W-36B 1 S 10-27-64	72	7.2	2074	35	21	44	1	0	364 5.97	--	245 6.91	--	--	--	--	--	--	--
5S/ 9W-36Q 1 S 11-27-64	--	7.7	1250	89 4.44	34 2.80	126 5.48	4 0.10	0	302 4.95	210 4.37	123 3.47	3.1 0.05	0.3	0.14	--	--	832 362	738

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number		Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per percent					Mineral constituents in parts per million				
Date sampled	Calcium Co				Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fuo- ride F	Bore- on B	Sili- ca SiO <sub>2</sub>	TDS Evap 180°C as Computed CaCO <sub>3</sub>			
LOWER SANTA ANA RIV HYD SUBUNIT Y01A0																			
EAST COASTAL PLAIN HYDRO SUBAREA Y01A1																			
SANTA ANA RIVER HYDRO UNIT Y0100																			
5S/10W- 1E 2 S 10-27-64	--	8.0	609	62 3.09	18 1.48	35 1.52	2 0.05	0	228 3.74	53 1.10	44 1.24	11 0.18	0.5	0.07	--	294 338	229		
12-15-64	--	7.7	739	87 4.34	14 1.15	40 1.74	3 0.08	0	228 3.74	73 1.52	56 1.58	20 0.32	0.5	0.05	--	425 406	275		
5S/10W- 3B 1 S 6-22-65	--	7.6	499	59 2.94	9 0.74	31 1.35	3 0.08	0	214 3.51	45 0.94	21 0.59	3 0.05	0.5	0.05	--	277 277	184		
5S/10W- 4E 1 S 2-15-65	--	7.7	740	91 4.54	19 1.56	42 1.83	4 0.10	0	253 4.15	104 2.17	43 1.21	17 0.27	0.6	0.03	--	468 445	305		
8-30-65	--	7.5	753	91 4.54	18 1.48	40 1.74	4 0.10	0	248 4.06	101 2.10	44 1.24	22 0.35	0.5	0.06	--	450 442	301		
5S/10W- 4P 2 S 2-15-65	--	7.6	940	116 5.79	22 1.81	48 2.09	4 0.10	0	295 4.84	153 3.19	54 1.52	7 0.11	0.6	0.05	--	567 550	380		
8-30-65	--	7.6	952	121 6.04	22 1.81	46 2.00	4 0.10	0	296 4.85	164 3.41	56 1.58	11 0.18	0.6	0.07	--	607 570	393		
5S/10W-12L 3 S 4-19-65	--	7.7	698	82 4.09	15 1.23	45 1.96	2 0.05	0	235 3.85	82 1.71	47 1.33	14 0.23	0.4	0.05	--	430 403	266		

TABLE E-1

ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sil- ica SiO <sub>2</sub>	Total Hardness as CaCO <sub>3</sub>	
SANTA ANA RIVER HYDRO UNIT Y0100																	
LOWER SANTA ANA RIV HYD SUBUNIT Y01A0																	
EAST COASTAL PLAIN HYDRO SUBAREA Y01A1																	
55/10W-13B 7 S 4-20-65	--	7.5	524	54 2.69 51	10 0.82 16	39 1.70 32	2 0.05 1	0	207 3.39 66	57 1.19 23	18 0.51 10	2.5 0.04 1	0.4	0.05	--	320 176	
55/10W-13C 1 S 11-27 64	--	7.6	538	57 2.84 52	10 0.82 15	39 1.70 31	2 0.05 1	0	218 3.57 66	58 1.21 22	22 0.62 11	2.5 0.04 1	0.3	0.05	--	278 183	
3-24-65	--	7.5	610	67 3.34 52	16 1.32 21	39 1.70 27	2 0.05 1	0	224 3.67 60	75 1.56 25	29 0.82 13	6.2 0.10 2	0.4	0.07	--	358 233	
55/10W-20N 1 S 1-18-65	--	7.5	505	54 2.69 52	10 0.82 16	38 1.65 32	2 0.05 1	0	190 3.11 65	62 1.29 27	14 0.39 8	0	0.3	0.05	--	283 176	
55/10W-25R 1 S 3-24-65	--	8.0	380	4 0.20 5	3 0.25 6	80 3.48 88	1 0.03 1	0	173 2.84 76	22 0.46 12	15 0.42 11	0	1.0	0.09	--	217 23	
55/10W-26D 3 S 1-18-65	--	7.4	461	40 2.00 44	7 0.58 13	44 1.91 42	2 0.05 1	0	185 3.03 69	48 1.00 23	13 0.37 8	0.6 0.01	0.4	0.05	--	264 129	
55/10W-27E 1 S 2-16-65	--	7.8	370	6 0.30 8	1 0.08 2	73 3.17 89	1 0.03 1	0	173 2.84 76	24 0.50 13	13 0.37 10	0.6 0.01	0.7	0.05	--	217 19	
55/10W-30P 5 S 7- 9-65	--	7.7	1200	96 4.79 39	32 2.63 21	111 4.83 39	6 0.15 1	0	151 2.47 20	337 7.02 56	110 3.10 25	2 0.03	0.6	0.16	--	820 371 769	

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per million reactance value			Mineral constituents in parts per million				
				Calcium	Magne- sium	Sodium	Potas- sium	Carbon- ate	Bicarb- onate	Sulfate	Chlo- ride	Fluo- ride	Boron	Silica	Total Evap. Resi- due (Sec- ondary)	Total Hardness as CaCO <sub>3</sub>
Date sampled				Ca	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	F	B	SiO <sub>2</sub>	Compared	CaCO <sub>3</sub>
SANTA ANA RIVER HYDRO UNIT																
Y0100																
LOWER SANTA ANA RIV HYD SUBUNIT Y0100																
EAST COASTAL PLAIN HYDRO SUBAREA Y0101																
5S/10W-31A12 S 7- 9-65	--	7.4	962	127 6.34 58	26 2.14 20	53 2.30 21	0.10 1	0	390 6.39 60	140 2.91 27	47 1.33 12	0.5	0.12	--	655 593	424
5S/10W-31B 3 S 7- 9-65	--	8.0	543	63 3.14 54	13 1.07 18	35 1.52 26	3 0.08 1	0	251 4.11 71	48 1.00 17	25 0.71 12	0.6	0.04	--	325 311	211
5S/10W-31B 7 S 7- 9-65	--	7.8	428	49 2.45 54	9 0.74 16	29 1.26 28	2 0.05 1	0	210 3.44 77	33 0.69 15	12 0.34 8	0.6	0.04	--	265 239	160
5S/10W-31B 8 S 7- 9-65	--	7.5	584	69 3.44 55	14 1.15 18	37 1.61 26	3 0.08 1	0	285 4.67 75	40 0.83 13	25 0.71 11	0.6	0.08	--	350 329	230
5S/10W-31C 7 S 7- 9-65	--	7.7	488	57 2.84 54	11 0.90 17	33 1.43 27	3 0.08 2	0	234 3.84 74	41 0.85 16	18 0.51 10	0.6	0.04	--	300 279	187
5S/10W-31H 3 S 7- 9-65	--	8.0	525	68 3.39 59	9 0.74 13	35 1.52 27	3 0.08 1	0	237 3.88 69	51 1.06 19	23 0.65 12	0.4	0.04	--	330 307	207
5S/10W-31L 2 S 7- 9-65	--	7.6	648	74 3.69 52	17 1.40 20	43 1.87 26	4 0.10 1	0	276 4.52 65	68 1.42 20	37 1.04 15	0.5	0.08	--	425 379	255
5S/10W-33C 2 S 2-16-65	--	8.0	2800	150 7.49 28	55 4.52 17	345 15.00 55	3 0.08	0	267 4.38 15	930 19.36 66	202 5.70 19	1.1	0.08	--	1943 1819	601



ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million reactivity value					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boro- B	Sul- fo- S <sub>2</sub> O <sub>3</sub>	Fe <sup>2+</sup> Fe	Evap 100°C Residue at 100°C Combined CaCO <sub>3</sub>	
LOWER SANTA ANA RIV HYD SUBUNIT Y01A0																		
EAST COASTAL PLAIN HYDRO SUBAREA Y01A1																		
SANTA ANA RIVER HYDRO UNIT Y0100																		
55/10W-33C 2 S 8-31-65	--	7.6	446	41 2.05 47	8 0.66 15	36 1.57 36	2 0.05 1	0	188 3.08 71	43 0.90 21	13 0.37 9	0	0.4	0.03	--	240 236	136	
55/11W-1H 1 S 7-13-65	--	7.6	787	85 4.24 52	26 2.14 26	40 1.74 21	4 0.10 1	0	262 4.29 53	105 2.19 27	53 1.49 18	8 0.13 2	0.6	0.04	--	506 450	319	
55/11W-3H 4 S 11-25-64	--	7.5	499	54 2.69 53	11 0.90 18	32 1.39 27	3 0.08 2	0	215 3.52 71	45 0.94 19	18 0.51 10	0.1	0.5	0.03	--	274 269	180	
4-19-65	--	7.8	499	57 2.84 56	9 0.74 15	32 1.39 28	3 0.08 2	0	216 3.54 72	45 0.94 16	16 0.45 9	0.6 0.01	0.5	0.05	--	301 269	179	
55/11W-4D 1 S 2-16-65	--	7.8	430	45 2.25 49	9 0.74 16	35 1.52 33	2 0.05 1	0	207 3.39 76	34 0.71 16	12 0.34 8	0	0.5	0.03	--	245 239	150	
55/11W-7C 1 S 10-27-64	--	7.6	345	7 0.35 10	3 0.25 7	65 2.83 82	1 0.03 1	0	163 2.67 74	23 0.48 13	16 0.45 13	0.0	0.4	0.06	--	219 196	30	
55/11W-7C 2 S 12-15-64	--	8.2	536	22 1.10 23	3 0.25 5	80 3.48 72	1 0.03 1	0	153 2.51 49	83 1.73 34	31 0.87 17	0	0.6	0.06	--	299 296	68	
4-20-65	--	7.6	361	9 0.45 13	0 0.25 5	71 3.09 87	1 0.03 1	0	165 2.70 76	21 0.44 12	13 0.37 10	1 0.02 1	0.6	0.07	--	229 198	23	

Y0100

SANTA ANA RIVER HYDRO UNIT

LOWER SANTA ANA RIV HYD SUBUNIT Y01A0

EAST COASTAL PLAIN HYDRO SUBAREA Y01A1



TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Date sampled	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent					Mineral constituents in parts per million				
					Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	Total hard- ness as CaCO <sub>3</sub>		
LOWER SANTA ANA RIV HYD SUBUNIT YO1A0																			
EAST COASTAL PLAIN HYDRO SUBAREA YO1A1																			
SANTA ANA RIVER HYDRO UNIT YO100																			
55/11W-11Q 3 S 11-25-64		--	7.8	602	69 3.44 56	13 1.07 17	36 1.57 25	3 0.08 1	0	259 4.25 69	57 1.19 19	24 0.68 11	0	0.5	0.03	--	360 330	226	
5-18-65		--	7.7	488	53 2.64 54	10 0.82 17	32 1.39 28	3 0.08 2	0	223 3.65 75	42 0.87 18	13 0.37 8	0	0.5	0.05	--	302 263	173	
55/11W-14K 2 S 12-16-64		--	7.8	446	49 2.45 54	7 0.58 13	33 1.43 31	3 0.08 2	0	206 3.38 75	38 0.79 18	11 0.31 7	0	0.5	0.04	--	242 243	152	
55/11W-16A 2 S 12-16-64		--	7.9	437	45 2.25 51	8 0.66 15	34 1.48 33	2 0.05 1	0	204 3.34 75	38 0.79 18	12 0.34 8	0	0.4	0.02	--	234 240	146	
55/11W-16G 1 S 6-28-65		67	9.7	330	13 0.65 19	2 0.16 5	55 2.39 71	6 0.15 4	8 0.27 8	79 1.29 37	66 1.37 39	20 0.56 16	0.0	0.3	0.01	--	223 209	41	
55/11W-16G 2 S 6-28-65		67	8.0	350	42 2.10 45	5 0.41 9	47 2.04 44	5 0.13 3	0	191 3.13 70	41 0.85 19	18 0.51 11	0.0	0.3	0	--	284 252	126	
55/11W-16G 3 S 7-13-65		--	8.4	360	47 2.35 49	6 0.49 10	43 1.87 39	5 0.13 3	14 0.47 10	150 2.46 52	59 1.23 26	19 0.54 11	0.0	0.4	0.05	--	268 267	142	
55/11W-18N 3 S 7- 2-65		64	7.2	40000	1076 53.69 11	1035 85.12 17	8100 352.19 71	221 5.65 1	0	298 4.88 1	2145 44.66 9	15775 444.86 90	13 0.21	1.6	3.10	--	30670 28516	6946	

SANTA ANA RIVER HYDRO UNIT YO100

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million reactance value					Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	TDS Evaporated at 180°C as Computed CaCO <sub>3</sub>	Total Hardness as CaCO <sub>3</sub>	
LOWER SANTA ANA RIV HYD SUBUNIT Y01A0																		
EAST COASTAL PLAIN HYDRO SUBAREA Y01A1																		
SANTA ANA RIVER HYDRO UNIT Y0100																		
5S/11W-18N 4 S 7- 2-65	66	9.2	8850	446 22.26 25	94 7.73 9	1361 59.18 66	25 0.64 1	9 0.30	7 0.11	331 6.89 8	2850 80.37 92	9 0.15	0.4	0.24	--	6144 5129	1501	
5S/11W-18N 5 S 7- 2-65	64	7.4	20096	695 34.68 15	478 39.31 17	3655 158.92 68	98 2.51 1	0 2	254 4.16	973 20.26 9	7550 212.91 90	11 0.18	0.8	1.00	--	16360 13587	3702	
5S/11W-18N 6 S 7- 2-65	66	7.8	4647	134 6.67 15	56 4.61 11	736 32.00 74	6 0.15	0	141 2.31 5	186 3.87 9	1320 37.22 85	11 0.18	0.5	0.20	--	2930 2519	565	
5S/11W-18N 7 S 7- 2-65	70	7.7	386	13 0.65 18	3 0.25 7	61 2.65 74	2 0.05 1	0	173 2.84 80	16 0.33 9	14 0.39 11	0	0.6	0.10	--	225 195	45	
5S/11W-19B 2 S 7- 8-65	69	8.2	530	48 2.40 45	10 0.82 15	47 2.04 38	3 0.08 1	0	161 2.64 50	36 0.75 14	66 1.86 35	0	0.6	0.04	--	300 290	161	
5S/11W-19B 3 S 3- 3-65	--	7.9	640	60 2.99 47	10 0.82 13	57 2.48 39	4 0.10 2	0	207 3.39 54	37 0.77 12	75 2.12 34	0.0	0.6	0.07	--	380 345	191	
7- 8-65	65	8.4	489	45 2.25 44	13 1.07 21	40 1.74 34	3 0.08 2	5 0.17 3	207 3.39 66	36 0.75 15	28 0.79 15	1 0.02	0.7	0.04	--	270 273	166	
5S/11W-19B 4 S 3- 9-65	--	7.9	458	50 2.50 53	8 0.66 14	34 1.48 31	4 0.10 2	0	212 3.47 74	36 0.75 16	17 0.48 10	0.0	0.6	0.05	--	298 254	158	

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million percent reactance value				Mineral constituents in parts per million					
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	TDS Evap Residue Expressed as CaCO <sub>3</sub> Computed	Total Evap Residue as CaCO <sub>3</sub>
LOWER SANTA ANA RIV HYD SUBUNIT Y0100																	
EAST COASTAL PLAIN HYDRO SUBAREA Y0101																	
55/11W-19B 4 S 7- 8-65	68	8.2	438	46 2.30 48	10 0.82 17	37 1.61 33	3 0.08 2	0	212 3.47 75	34 0.71 15	16 0.45 10	0	0.6	0.05	--	260	156
55/11W-19B 5 S 3- 9-65	--	8.2	355	18 0.90 26	1 0.08 2	55 2.39 70	2 0.05 1	0	150 2.46 71	30 0.62 18	14 0.39 11	0.0	0.5	0.05	--	228	49
7- 8-65	71	8.6	342	15 0.75 21	3 0.25 7	59 2.57 71	2 0.05 1	10 0.33 9	134 2.20 62	30 0.62 18	14 0.39 11	0	0.5	0.06	--	200	50
55/11W-19B 6 S 3- 3-65	--	8.4	326	7 0.35 11	0 0.08 2	64 2.78 88	1 0.03 1	9 0.30 9	142 2.33 73	9 0.19 6	14 0.39 12	0.0	0.7	0.09	--	200	18
7- 8-65	75	8.4	301	5 0.25 8	1 0.08 2	66 2.87 89	1 0.03 1	7 0.23 7	146 2.39 72	9 0.19 6	17 0.48 15	1 0.02 1	0.7	0.10	--	160	17
55/11W-19B 8 S 3- 3-65	--	8.1	526	47 2.35 44	10 0.82 15	49 2.13 39	4 0.10 2	0	215 3.52 64	43 0.90 16	39 1.10 20	1.0 0.02	0.6	0.06	--	333	159
7- 8-65	--	8.2	446	41 2.05 44	10 0.82 17	40 1.74 37	3 0.08 2	0	195 3.20 69	39 0.81 17	22 0.62 13	0	0.7	0.07	--	269	144
55/11W-19B 9 S 3- 3-65	--	7.9	640	50 2.50 42	10 0.82 14	59 2.57 43	2 0.05 1	0	215 3.52 57	45 0.94 15	60 1.69 27	0.0	0.6	0.07	--	390	166

TABLE E-1

ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					Mineral constituents in parts per million									
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Baron B	Sili- co SiO <sub>2</sub>	TD <sub>5</sub> Evap 180°C Evap 105°C Computed Total		
LOWER SANTA ANA RIV HYD SUBUNIT YO1AO																		
EAST COASTAL PLAIN HYDRO SUBAREA YO1AL																		
SANTA ANA RIVER HYDRO UNIT YO100																		
55/11W-19B 9 S 7- 8-65	--	8.1	494	44 2.20 43	10 0.82 16	46 2.00 39	3 0.08 2	0	210 3.44 67	40 0.83 16	30 0.85 17	0	0.7	0.08	--	282 277		
55/11W-19B10 S 3- 3-65	--	8.0	672	73 3.64 56	13 1.07 16	39 1.70 26	4 0.10 2	0	213 3.49 52	44 0.92 14	82 2.31 34	0.0	0.5	0.08	--	437 360		
7- 8-65	--	8.1	675	77 3.84 56	15 1.23 18	38 1.65 24	3 0.08 1	0	211 3.46 51	42 0.87 13	85 2.40 36	0	0.6	0.06	--	403 364		
55/11W-19B11 S 3- 9-65	--	7.3	5216	511 25.50 50	116 9.54 19	369 16.04 31	6 0.15 1	0	294 4.82 9	216 4.50 9	1517 42.78 82	0.0	0.4	0.20	--	4682 2880		
7-12-65	68	7.1	4808	480 23.95 50	114 9.38 20	330 14.35 30	10 0.26 1	0	198 3.25 7	156 3.25 7	1420 40.04 86	17 0.27 1	0.5	0.20	--	2900 1660		
55/11W-20E 4 S 3- 3-65	--	7.9	2381	207 10.33 40	74 6.09 24	215 9.35 36	4 0.10 1	0	486 7.97 31	247 5.14 20	440 12.41 48	5.0 0.08	0.4	0.24	--	2625 1640		
55/11W-20E 5 S 3- 3-65	--	7.9	625	76 3.79 56	16 1.32 19	37 1.61 24	3 0.08 1	0	259 4.25 64	62 1.29 19	40 1.13 17	0.0	0.7	0.08	--	390 362		
55/11W-20E 6 S 3- 3-65	--	8.2	445	44 2.20 46	10 0.82 17	38 1.65 35	3 0.08 2	0	217 3.56 76	35 0.73 15	15 0.42 9	0.0	0.8	0.05	--	260 252		

TABLE E-1

ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				Mineral constituents in parts per million					
				Calcium Co	Magne-sium Mg	Sodium Na	Potas-sium K	Carbon-ate CO <sub>3</sub>	Bicar-bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo-ride Cl	Ni-trate NO <sub>3</sub>	Fluo-ride F	Boron B	Sili-ca SiO <sub>2</sub>	Total Dissolved Solids Computed G/GCC	
LOWER SANTA ANA RIV HYD SUBUNIT Y01AO EAST COASTAL PLAIN HYDRO SUBAREA Y01AI SANTA ANA RIVER HYDRO UNIT Y0100																	
5S/11W-20M 2 S 7- 9-65	65	7.2	18109	1227 61.23 31	394 32.40 16	2360 102.61 52	27 0.69	0	140 2.29 1	725 15.09 8	6325 178.37 91	1 0.02	0.6	0.25	--	12088 11129	4685
5S/11W-20M 3 S 3- 2-65	--	8.0	710	64 3.19 47	12 0.99 14	60 2.61 38	2 0.05 1	0	186 3.05 45	45 0.94 14	101 2.85 42	0.0	0.5	0.04	--	446 376	209
7- 9-65	66	8.0	655	62 3.09 48	12 0.99 15	53 2.30 36	3 0.08 1	0	181 2.97 46	41 0.85 13	91 2.57 40	0.0	0.6	0.06	--	385 352	204
5S/11W-20M 4 S 3- 2-65	--	8.2	355	18 0.90 25	5 0.41 12	50 2.17 61	2 0.05 1	0	156 2.56 75	24 0.50 15	13 0.37 11	0.0	0.5	0.06	--	260 189	66
7- 9-65	69	8.1	360	23 1.15 31	3 0.25 7	53 2.30 61	2 0.05 1	0	160 2.62 71	30 0.62 17	16 0.45 12	1 0.02 1	0.4	0.06	--	206 207	70
5S/11W-20M 6 S 3- 2-65	--	7.1	26320	2258 112.67 32	731 60.12 17	4000 173.92 50	36 0.92	0	237 3.88 1	1200 24.98 7	11300 318.66 92	12.0 0.19	1.2	0.20	--	20560 19655	8646
7- 9-65	66	7.1	29197	2236 111.58 32	751 61.76 17	4120 179.14 51	38 0.97	0	220 3.61 1	1173 24.42 7	11335 319.65 92	2 0.03	1.2	0.20	--	21830 19765	8674
5S/11W-20M 7 S 3- 2-65	--	7.9	468	52 2.59 53	11 0.90 18	30 1.30 27	3 0.08 2	0	215 3.52 74	31 0.65 14	21 0.59 12	0.0	0.8	0.06	--	280 255	175



TABLE E-1

SANTA ANA RIVER HYDRO UNIT

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million reactance value				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sul- fa- te SO <sub>2</sub>	T.D.S. Evap. Residue Computed CaCO <sub>3</sub>	
LOWER SANTA ANA RIV HYD SUBUNIT YOLAO																	
EAST COASTAL PLAIN HYDRO SUBAREA YOLAI																	
SANTA ANA RIVER HYDRO UNIT YOI00																	
5S/11W-20Q 4 S 9-23-65	--	8.1	1524	171 8.53 59	30 2.47 17	75 3.26 23	4 0.10 1	0	185 3.03 21	62 1.29 9	352 9.93 70	0	0.5	0.09	--	1314	550
5S/11W-20Q 5 S 9-23-65	--	7.4	11280	1417 70.71 57	266 21.88 18	699 30.39 25	16 0.41	0	133 2.18 2	467 9.72 8	3872 109.19 89	115 1.85 2	0.6	0.15	--	8720	4633
5S/11W-20Q 6 S 9-23-65	--	8.1	586	60 2.99 51	13 1.07 18	39 1.70 29	3 0.08 1	0	199 3.26 56	39 0.81 14	63 1.78 30	1 0.02	0.5	0.04	--	316	203
5S/11W-20Q11 S 9-23-65	--	8.3	602	67 3.34 54	11 0.90 15	43 1.87 30	3 0.08 1	8 0.27 4	197 3.23 53	38 0.79 13	65 1.83 30	1 0.02	0.6	0.10	--	398	212
5S/11W-20Q12 S 9-23-65	--	7.9	540	55 2.74 51	10 0.82 15	41 1.78 33	3 0.08 1	0	208 3.41 62	38 0.79 14	45 1.27 23	0	0.5	0.02	--	301	178
5S/11W-20Q13 S 9-23-65	--	8.3	742	80 3.99 55	15 1.23 17	45 1.96 27	3 0.08 1	0	203 3.33 46	42 0.87 12	109 3.07 42	1 0.02	0.5	0.10	--	468	261
5S/11W-21G 1 S 6-25-65	69	8.3	572	44 2.20 36	3 0.25 4	83 3.61 58	5 0.13 2	19 0.63 10	151 2.47 41	68 1.42 24	53 1.49 25	0	0.4	0.05	--	332	123
5S/11W-21M 7 S 1-25-65	--	7.9	540	61 3.04 48	16 1.32 21	42 1.83 29	3 0.08 1	0	214 3.51 57	88 1.83 30	28 0.79 13	0.0	0.2	0.12	--	462	218

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reactance value				Mineral constituents in parts per million					
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Sulfate SO <sub>4</sub>	Total Hardness as CaCO <sub>3</sub>	
SANTA ANA RIVER HYDRO UNIT Y0100																	
LOWER SANTA ANA RIV HYD SUBUNIT Y01A0																	
EAST COASTAL PLAIN HYDRO SUBAREA Y01A1																	
5S/11W-21N 1 S 1-26-65	--	8.3	340	18 0.90 24	3 0.25 7	58 2.52 68	1 0.03 1	1 0.03 1	159 2.61 70	29 0.60 16	18 0.51 14	0.0	0.4	0.10	--	228 207	58
5S/11W-21N 2 S 1-25-65	--	8.0	530	46 2.30 37	20 1.64 26	51 2.22 36	2 0.05 1	0	197 3.23 53	108 2.25 37	22 0.62 10	0.0	0.4	0.12	--	368 346	197
5S/11W-21N 3 S 1-25-65	--	8.2	390	30 1.50 35	13 1.07 25	37 1.61 38	2 0.05 1	0	193 3.16 72	31 0.65 15	20 0.56 13	0.0	0.2	0.10	--	242 228	129
5S/11W-21N 4 S 1-25-65	--	7.7	590	74 3.69 51	13 1.07 15	54 2.35 33	3 0.08 1	0	220 3.61 51	102 2.12 30	46 1.30 18	0.0	0.4	0.10	--	400 401	238
5S/11W-21N 5 S 1-25-65	--	7.9	565	72 3.59 55	13 1.07 16	41 1.78 27	4 0.10 2	0	252 4.13 64	47 0.98 15	46 1.30 20	0.0	0.2	0.10	--	380 347	233
5S/11W-21N 6 S 1-25-65	--	7.8	500	56 2.79 48	17 1.40 24	36 1.57 27	3 0.08 1	0	216 3.54 62	37 0.77 13	51 1.44 25	0.0	0.4	0.10	--	334 307	210
5S/11W-21N 7 S 1-25-65	--	7.8	540	57 2.84 44	21 1.73 27	41 1.78 28	3 0.08 1	0	235 3.85 61	50 1.04 16	52 1.47 23	0.0	0.2	0.07	--	404 340	229
5S/11W-21N 8 S 1-25-65	--	8.3	330	19 0.95 28	2 0.16 5	53 2.30 67	1 0.03 1	1 0.03 1	154 2.52 71	29 0.60 17	14 0.39 11	0.0	0.2	0.10	--	226 195	56

**TABLE E-1**  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per percent					Mineral constituents in parts per million				
				Calcium	Magne-sium	Sodium	Potas-sium	Carbon-ate	Bicar-bonate	Sulfate	Chlo-ride	Ni-trate	Fluo-ride	Boro-	Sili-co	Total I.O.S. Evap 105°C as CaCO <sub>3</sub>		
Date sampled				Co	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>			
SANTA ANA RIVER HYDRO UNIT Y0100																		
LOWER SANTA ANA RIV HYD SUBUNIT Y0100																		
EAST COASTAL PLAIN HYDRO SUBAREA Y0101																		
5S/11W-23A 3 S 1-19-65	--	7.4	530	55 2.74 56	9 0.74 15	30 1.30 27	3 0.08 2	0	211 3.46 73	43 0.90 19	14 0.39 8	0.5 0.01	--	--	--	291 258		
6-21-65	--	7.6	476	54 2.69 54	10 0.82 17	31 1.35 27	3 0.08 2	0	214 3.51 71	45 0.94 19	16 0.45 9	1.2 0.02	0.6	0.04	--	229 266		
5S/11W-26H 7 S 6- 1-65	68	8.4	559	41 2.03 38	5 0.41 8	66 2.87 53	5 0.13 2	12 0.40 7	146 2.39 44	63 1.31 24	46 1.30 24	0.8 0.01	0.5	0.06	--	320 311		
5S/11W-26H 8 S 6- 2-65	68	8.0	513	41 2.05 41	6 0.49 10	55 2.39 47	5 0.13	0	175 2.87 58	57 1.19 24	32 0.90 18	0.8 0.01	0.3	0.04	--	360 283		
5S/11W-26M 7 S 4-20-65	--	7.7	436	16 0.80 17	1 0.08 2	88 3.83 81	1 0.03 1	0	246 4.03 88	7 0.15 3	13 0.37 8	0.6 0.01	0.7	0.17	--	261 248		
5S/11W-26M 9 S 11-27-64	--	8.2	393	9 0.45 11	1 0.08 2	80 3.48 87	0	0	196 3.21 83	13 0.27 7	13 0.37 10	0	0.6	0.08	--	241 213		
3-24-65	--	8.0	380	11 0.55 14	1 0.08 2	77 3.35 84	1 0.03 1	0	199 3.26 82	13 0.27 7	16 0.45 11	1.2 0.02	0.9	0.11	--	237 219		
7-12-65	--	8.0	388	9 0.45 12	1 0.08 2	75 3.26 85	1 0.03 1	0	190 3.11 81	12 0.25 7	16 0.45 12	0.6 0.01	0.7	0.11	--	219 209		



TABLE E-1

ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million reagent value				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Ni- trate NO <sub>3</sub>	Fluoride F	Boron B	Sili- ca SiO <sub>2</sub>	Total Dissolved Solids TDS	
LOWER SANTA ANA RIV HYD SUBUNIT Y01A0																	
EAST COASTAL PLAIN HYDRO SUBAREA Y01A1																	
SANTA ANA RIVER HYDRO UNIT Y0100																	
5S/11W-26Q 1 S 5-25-65	69	8.4	428	37 1.85 42	4 0.33 7	50 2.17 49	0.10 0.10 2	0.27 6	173 2.84 65	34 0.71 16	16 0.45 10	8 0.13 3	0.4	0.05	--	260 246	109
5S/11W-26Q 2 S 5-25-65	68	8.2	580	63 3.14 48	10 0.82 13	55 2.39 37	0.13 0.13 2	11 0.37 6	139 2.28 37	84 1.75 28	60 1.69 27	7.5 0.12 2	0.6	0.05	--	396 364	198
5S/11W-27Q 3 S 6-14-65	69	8.9	370	10 0.50 11	0	88 3.83 87	0.08 0.08 2	28 0.93 20	183 3.00 65	0	23 0.65 14	0.8 0.01	0.6	0.13	--	364 243	25
5S/11W-27Q 4 S 6-14-65	69	8.1	575	36 1.80 31	7 0.58 10	74 3.22 56	0.13 0.13 2	5 0	124 2.03 36	119 2.48 44	30 0.85 15	14.6 0.24 4	0.3	0.16	--	416 347	119
5S/11W-28D 4 S 1-25-65	--	7.3	730	89 4.44 52	28 2.30 27	41 1.78 21	3 0.08 1	0	227 3.72 42	208 4.33 49	25 0.71 8	0.0	0.2	0.15	--	542 506	337
5S/11W-28D 5 S 12-23-64	--	7.9	630	49 2.45 37	23 1.89 29	51 2.22 34	2 0.05 1	0	212 3.47 52	124 2.58 39	20 0.56 10	0.0	0.2	0.18	--	400 374	217
1-25-65	--	8.0	532	58 2.89 46	13 1.07 17	52 2.26 36	2 0.05 1	0	201 3.29 53	110 2.29 37	21 0.59 10	0.0	0.2	0.10	--	370 355	198
5S/11W-28D 6 S 12-18-64	--	7.7	990	126 6.29 57	32 2.63 24	47 2.04 18	3 0.08 1	0	203 3.33 30	328 6.83 61	35 0.99 9	0.0	0.2	0.15	--	694 671	446



TABLE E-1

ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents percent			Mineral constituents in parts per million						
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	TD <sub>5</sub> Extrapolated to 105°C Computed	Total Hardness as CaCO <sub>3</sub>	
SANTA ANA RIVER HYDRO UNIT Y0100																		
LOWER SANTA ANA RIV HYD SUBUNIT Y01A0																		
EAST COASTAL PLAIN HYDRO SUBAREA Y01A1																		
55/11W-28D 6 S 1-25-65	--	7.6	820	116 5.79 58	26 2.14 21	45 1.96 20	3 0.08 1	0	196 3.21 33	259 5.39 55	41 1.16 12	0.0	0.4	0.12	--	630	397	
55/11W-28M 2 S 7- 6-65	67	8.2	622	38 1.90 33	3 0.25 4	81 3.52 62	2 0.05 1	0	170 2.79 47	20 0.42 7	96 2.71 46	0	0.4	0.05	--	335	108	
55/11W-29A 7 S 1-25-65	--	7.7	455	40 2.00 41	12 0.99 20	42 1.83 38	2 0.05 1	0	203 3.33 70	34 0.71 15	25 0.71 15	0.0	0.4	0.12	--	240	150	
55/11W-29B 5 S 11- 6-64	69	9.4	910	4 0.20 2	1 0.08 1	205 8.91 94	13 0.33 3	41 1.37 14	219 3.59 38	5 0.10 1	156 4.40 47	0.0	0.1	0.05	--	584	14	
55/11W-29B 9 S 9-23-65	--	8.2	979	98 4.89 53	16 1.32 14	68 2.96 32	3 0.08 1	0	173 2.84 31	41 0.85 9	195 5.50 60	1.5 0.02	0.4	0.09	--	700	311	
55/11W-29B11 S 9-23-65	--	8.0	832	76 3.79 49	11 0.90 12	67 2.91 38	3 0.08 1	0	159 2.61 34	37 0.77 10	155 4.37 56	1 0.02	0.5	0.10	--	521	235	
55/11W-29B12 S 9-23-65	--	7.6	4368	424 21.16 51	89 7.32 18	300 13.04 31	9 0.23 1	0	123 2.02 5	132 2.75 7	1320 37.22 88	8 0.13	0.4	0.30	--	3012	1425	
55/11W-29C 5 S 3- 2-65	--	7.1	40323	793 39.57 8	1134 93.26 18	8720 379.15 74	130 3.32 1	0	183 3.00 1	2260 47.05 9	16150 455.43 90	9.0 0.15	1.6	2.50	--	31540	6647	
																29290		

TABLE E-1

ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in							parts per million equivalents percent		Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	Total dissolved solids TDS mg/l	
LOWER SANTA ANA RIV HYD SUBUNIT Y01A0																	
EAST COASTAL PLAIN HYDRO SUBAREA Y01A1																	
SANTA ANA RIVER HYDRO UNIT Y0100																	
5S/11W-29C 6 S 3- 2-65	--	7.2	23800	1155 57.63 20	592 48.69 16	4320 187.83 64	43 1.10	0	195 3.20 1	1275 26.55 9	9400 265.08 90	7.0 0.11	1.0	2.20	--	18390 16891	
5S/11W-29C 7 S 3- 2-65	--	7.2	16950	1251 62.42 31	320 26.32 13	2550 110.87 55	21 0.54	0	207 3.39 2	576 11.99 6	6500 183.30 92	7.0 0.11	0.9	7.20	--	12330 11335 4441	
5S/11W-29C 8 S 3- 2-65	--	7.8	7463	201 10.03 13	127 10.44 13	1300 56.52 73	16 0.41	0	59 0.97 1	430 8.95 12	2375 66.98 87	12.0 0.19	0.9	0.80	--	4810 4492 1024	
5S/11W-33B 2 S 7- 6-65	65	7.9	904	94 4.69 55	14 1.15 14	58 2.52 30	4 0.10 1	0	209 3.43 41	1 0.02 59	173 4.88 59	0	0.4	0.06	--	626 447 292	
5S/11W-33B 3 S 7- 6-65	69	6.5	14970	344 17.17 11	171 14.06 9	2800 121.74 78	113 2.89 2	0	32 0.52	604 12.58 8	4950 139.59 91	31 0.50	1.1	0.50	--	9500 9030 1563	
5S/11W-33B 5 S 6- 7-65	69	7.5	395	40 2.00 49	5 0.41 10	38 1.65 40	2 0.05 1	0	190 3.11 76	30 0.62 15	13 0.37 9	0	0.6	0.06	--	220 222 121	
5S/12W-13A 2 S 7- 1-65	66	7.2	19880	947 47.26 22	426 35.03 16	3100 134.79 62	35 0.89	0	242 3.97 2	927 19.30 9	6825 192.47 89	15 0.24	0.8	0.60	--	13790 12392 4118	
5S/12W-13A 4 S 7- 1-65	65	8.2	769	60 2.99 40	14 1.15 15	75 3.26 43	4 0.10 1	0	209 3.43 46	39 0.81 11	114 3.21 43	0	0.6	0.02	--	388 409 207	

Y0100

SANTA ANA RIVER HYDRO UNIT

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent reactance value					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	Total Evap. 180°C Evap. 105°C as CaCO <sub>3</sub>		
SANTA ANA RIVER HYDRO UNIT Y0100																		
LOWER SANTA ANA RIV HYD SUBUNIT Y01A0																		
EAST COASTAL PLAIN HYDRO SUBAREA Y01A1																		
5S/12W-13A 5 S 7- 1-65	66	7.8	446	40 2.00 43	7 0.58 13	45 1.96 42	3 0.08 2	0	190 3.11 68	39 0.81 18	23 0.65 14	0	0.7	0.05	--	250 251	129	
5S/12W-13A 6 S 7- 1-65	70	8.1	542	24 1.20 23	5 0.41 8	84 3.65 69	2 0.05 1	0	159 2.61 49	35 0.73 14	71 2.00 37	0	0.5	0.08	--	330 300	81	
5S/12W-13A 7 S 7- 1-65	72	8.0	341	2 0.10 3	4 0.33 9	70 3.04 87	1 0.03 1	0	178 2.92 84	1 0.02 1	18 0.51 15	1 0.02 1	0.9	0.16	--	220 186	22	
6S/ 8W- 5E 2 S 10-21-64	84	7.4	1210	92 4.59 35	36 2.96 22	126 5.48 42	5 0.13 1	0	300 4.92 38	243 5.06 39	96 2.71 21	9.3 0.15 1	0.5	0.16	58	842 813	378	
5- 4-65	83	7.8	1117	88 4.39 38	30 2.47 21	106 4.61 40	3 0.08 1	0	297 4.87 42	207 4.31 37	85 2.40 20	9.5 0.15 1	0.4	0.12	57	734 732	343	
6S/ 8W- 7Q 1 S 10-21-64	--	7.4	1271	--	--	--	--	0	207 3.39	--	171 4.82	--	--	--	--	--	--	
5- 4-65	--	7.6	1271	--	--	--	--	0	211 3.46	--	168 4.74	34 0.55	--	--	--	--	--	
6S/ 8W-17D 2 S 5- 4-65	--	7.6	1355	91 4.54 34	21 1.73 13	165 7.17 53	3 0.08 1	0	235 3.85 29	189 3.93 29	175 4.94 37	38 0.61 5	0.4	0.08	52	848 850	314	

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents percent				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlor- ide Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Baron B	Sili- ca SiO <sub>2</sub>	Total Dissolved Solids as CaCO <sub>3</sub>	
SANTA ANA RIVER HYDRO UNIT Y0100																	
LOWER SANTA ANA RIV HYD SUBUNIT Y01A0																	
EAST COASTAL PLAIN HYDRO SUBAREA Y01A1																	
65/ 8W-268 2 S 11-13-64	63	7.4	1392	102 5.09 36	36 2.96 21	140 6.09 43	0.13 1	5	0	356 5.83 39	246 5.12 35	137 3.86 26	0.3	0.09	40	921 881	403
65/ 9W- 1L 1 S 10-21-64	--	7.3	1168	--	--	--	--	--	0	238 3.90	--	145 4.09	--	--	--	--	--
10-27-64	--	7.6	1200	84 4.19 36	28 2.30 20	117 5.09 44	4 0.10 1	4	0	221 3.62 31	149 3.10 27	155 4.37 38	0.5	0.17	--	767 675	325
65/ 9W- 2A 4 S 10-27-64	--	7.6	1520	137 6.84 44	41 3.37 22	117 5.09 33	3 0.08 1	3	0	267 4.38 28	253 5.27 34	186 5.25 34	0.4	0.12	--	1037 899	511
65/ 9W- 2D 1 S 2-17-65	82	7.5	731	--	--	--	--	--	0	207 3.39	86 1.79	73 2.06	--	--	--	--	--
65/ 9W- 5A 1 S 10-21-64	90	9.0	565	8 0.40 7	2 0.16 3	115 5.00 89	1 0.03 1	1	20 0.67 12	161 2.64 48	12 0.25 5	70 1.97 36	1.0	0.26	19	354 327	28
5- 4-65	--	8.9	552	--	--	--	--	--	23 0.77	148 2.43	--	63 1.78	--	--	--	--	--
65/10W- 1L 1 S 10-13-64	--	7.8	884	--	--	--	--	--	--	185 3.03	--	49 1.38	--	--	--	--	--

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					Mineral constituents in parts per million									
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Barium Ba	Silica SiO <sub>2</sub>	Total dissolved solids TDS mg/l ppm Converted		
SANTA ANA RIVER HYDRO UNIT Y0100																		
LOWER SANTA ANA RIV HYD SUBUNIT Y01A0																		
EAST COASTAL PLAIN HYDRO SUBAREA Y01A1																		
6S/10W-1L 1 S 5-13-65	--	7.7	904	--	--	--	--	0	191 3.13	--	49 1.38	--	--	--	--	--	--	
6S/10W-5B 4 S 7-13-65	--	7.5	455	44 2.20 47	9 0.74 16	38 1.65 36	2 0.05 1	0	197 3.23 71	44 0.92 20	15 0.42 9	0	0.4	0.02	--	232 249	147	
6S/10W-6H 1 S 10-27-64	--	7.6	1330	140 6.99 57	31 2.55 21	58 2.52 21	4 0.10 1	0	203 3.33 27	30 0.62 5	298 8.40 68	0	0	0.03	--	980 661	477	
6S/11W-1N 1 S 3-24-65	--	7.7	520	14 0.70 13	2 0.16 3	106 4.61 84	2 0.05 1	0	311 5.10 92	0	15 0.42 8	2 0.03 1	0.8	0.26	--	321 295	43	
SANTIAGO HYDRO SUBAREA																		
5S/7W-19R 1 S 3-17-65	--	7.1	1210	141 7.04 52	42 3.45 25	72 3.13 23	1 0.03	0	426 6.98 50	267 5.56 40	52 1.47 10	2 0.03	0.2	0.15	20	839 807	525	
5S/8W-1N 1 S 3-17-65	--	7.6	1337	--	--	--	--	0	299 4.90	--	44 1.24	--	--	--	--	--	--	
5S/8W-13C 1 S 3-17-65	--	7.3	861	--	--	--	--	0	308 5.05	--	27 0.76	--	--	--	--	--	--	



TABLE E-1

ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent reactance value				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Flu- oride F	Bor- on B	Sili- ca SiO <sub>2</sub>	Total Evap- orated Solids	
LOWER SANTA ANA RIV HYD SUBUNIT Y01A0																	
SANTA ANA NARROWS HYDRO SUBAREA Y01A3																	
35/ 8W-25J 1 S 10-13-64	--	7.8	1666	--	--	--	--	0	376 6.16	372 7.75	149 4.20	--	--	--	--	--	
4-14-65	--	7.6	1588	--	--	--	--	0	381 6.24	351 7.31	144 4.06	--	--	--	--	--	
35/ 8W-31E 2 S 10-13-64	--	7.5	1105	--	--	--	--	0	148 2.43	298 6.20	93 2.62	--	--	--	--	--	
4-14-65	--	7.5	1155	--	--	--	--	0	181 2.97	297 6.18	101 2.85	--	--	--	--	--	
35/ 8W-33K 2 S 10-13-64	--	7.4	1552	--	--	--	--	0	336 5.51	411 8.56	118 3.33	--	--	--	--	--	
4-14-65	--	7.3	1576	--	--	--	--	0	353 5.79	395 8.22	122 3.44	--	--	--	--	--	
35/ 8W-34M 1 S 10- 6-64	--	7.3	1495	--	--	--	--	0	350 5.74	--	126 3.55	--	0.5	--	--	--	
4-14-65	--	7.4	1552	--	--	--	--	0	349 5.72	--	131 3.69	--	--	--	--	--	

TABLE E-1

ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per percent reactance value					Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	I.O.S. Evap 100°C Evap 105°C Computed CaCO <sub>3</sub>	Total Hardness as CaCO <sub>3</sub>	
LOWER SANTA ANA RIV HYD SUBUNIT Y01A0																		
SANTA ANA NARROWS HYDRO SUBAREA Y01A3																		
SANTA ANA RIVER HYDRO UNIT Y0100																		
3S/ 9W-35Q 1 S 10-13-64	--	7.6	1136	--	--	--	--	0	178 2.92	294 6.12	95 2.68	--	--	--	--	--	--	
4-14-65	--	7.6	1123	--	--	--	--	0	163 2.67	291 6.06	99 2.79	--	--	--	--	--	--	
4S/ 9W- 1C 1 S 10-13-64	--	7.6	1517	158 7.88 50	40 3.29 21	105 4.57 29	4 0.10 1	0	322 5.28 33	319 6.64 41	147 4.15 26	5.8 0.09 1	0.6	0.26	19	1019 957	559	
4S/ 9W- 1E 2 S 10-13-64	--	7.6	1694	159 7.93 42	56 4.61 24	143 6.22 33	5 0.13 1	0	383 6.28 34	331 6.89 37	173 4.88 26	26 0.42 2	0.6	0.21	15	1148 1097	628	

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million reactance value				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	Total Diss- olved Solids as CaCO <sub>3</sub>	
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0																	
CHINO HYDRO SUBAREA Y01B1																	
1S/ 5W- 6D 1 S 2- 4-65	--	7.6	367	49 2.45 63	6 0.49 13	20 0.87 23	2 0.05 1	0 0 0	209 3.43 89	5 0.10 3	7 0.20 5	8.1 0.13 3	0.2	0	--	229 147	
9-13-65	--	7.9	872	75 3.74 41	24 1.97 21	78 3.39 37	4 0.10 1	0 0 0	160 2.62 29	217 4.52 49	71 2.00 22	2.2 0.04 0	0.7	0.10	--	572 286	
1S/ 5W-15G 1 S 2- 4-65	--	7.6	433	64 3.19 73	5 0.41 9	16 0.70 16	2 0.05 1	0 0 0	192 3.15 71	25 0.52 12	10 0.28 6	29 0.47 1	0.3	0	--	271 180	
9-13-65	--	7.8	420	64 3.19 69	8 0.66 14	16 0.70 15	2 0.05 1	0 0 0	196 3.21 71	25 0.52 12	11 0.31 7	29 0.47 10	0.3	0	--	265 193	
1S/ 5W-16J 1 S 2- 4-65	--	7.6	439	61 3.04 68	8 0.66 15	16 0.70 16	2 0.05 1	0 0 0	189 3.10 70	26 0.54 12	10 0.28 6	33 0.53 12	0.3	0	--	264 185	
1S/ 5W-20D 1 S 9-13-65	--	7.7	403	58 2.89 68	7 0.58 14	16 0.70 17	2 0.05 1	0 0 0	186 3.05 73	8 0.17 4	19 0.54 13	26 0.42 10	0.3	0	--	242 174	
1S/ 5W-21B 1 S 9-13-65	--	7.8	429	65 3.24 71	7 0.58 13	16 0.70 15	2 0.05 1	0 0 0	193 3.16 69	24 0.50 11	13 0.37 8	32 0.52 11	0.3	0	--	261 191	
1S/ 6W-11B 1 S 6-29-65	--	7.9	362	51 2.54 64	8 0.66 17	16 0.70 18	2 0.05 1	0 0 0	205 3.36 86	7 0.15 4	9 0.25 6	9.5 0.15 4	0.5	0.01	--	205 204	

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (microhmhos at 25°C)	Mineral constituents in parts per million						parts per million equivalents per percent reactance value						Mineral constituents in parts per million					
				Calcium	Magne- sium Mg	Sodium No	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fuo- ride F	Boron B	Silica SiO <sub>2</sub>	T.O.S. Evap. Residue as CaCO <sub>3</sub>	Total Hardness as CaCO <sub>3</sub>				
MIDDLE SANTA ANA R HYDRO SUBUNIT YO1B0																					
CHINO HYDRO SUBAREA																					
YO1B1																					
1S/ 6W-11N 1 S 1-28-65	--	7.9	529	61 3.04 55	11 0.90 16	36 1.57 28	2 0.05 1	2	0	192 3.15 55	79 1.64 29	29 0.82 14	6.2 0.10 2	0.06	--	341 197					
6-29-65	--	7.9	360	52 2.59 66	7 0.58 15	16 0.70 18	2 0.05 1	2	0	203 3.33 86	7 0.15 4	9 0.25 6	9.5 0.15 4	0.02	--	218 159					
9-28-65	--	7.8	373	49 2.45 62	8 0.66 17	18 0.78 20	2 0.05 1	2	0	202 3.31 83	9 0.19 5	10 0.28 7	12 0.19 5	0.01	--	210 156					
1S/ 6W-12P 1 S 1-28-65	--	7.8	536	60 2.99 50	17 1.40 24	34 1.48 25	3 0.08 1	3	0	184 3.02 54	79 1.64 29	30 0.85 15	8.3 0.13 2	0.04	--	328 220					
6-29-65	--	7.9	390	57 2.84 67	5 0.41 10	21 0.91 22	2 0.05 1	2	0	205 3.36 79	15 0.31 7	11 0.31 7	16.0 0.26 6	0.01	--	233 228					
1S/ 6W-16A 1 S 3- 8-65	--	7.5	340	41 2.05 58	9 0.74 21	16 0.70 20	2 0.05 1	2	0	183 3.00 85	10 0.21 6	6 0.17 5	8 0.13 4	0	--	210 140					
9-27-65	--	7.7	375	45 2.25 55	12 0.99 24	18 0.78 19	2 0.05 1	2	0	200 3.28 79	12 0.25 6	14 0.39 9	13 0.21 5	0	--	235 162					
1S/ 6W-16L 1 S 6-29-65	--	7.9	295	38 1.90 61	7 0.58 18	14 0.61 19	2 0.05 2	2	0	161 2.64 84	10 0.21 7	7 0.20 6	6.0 0.10 3	0.02	--	196 124					
																164					

ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in						parts per million equivalents per percent				Mineral constituents in parts per million			
				Calcium Co	Magne-sium Mg	Sodium Na	Potas-sium K	Carbon-ate CO <sub>3</sub>	Bicar-bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo-ride Cl	Ni-trate NO <sub>3</sub>	Fluo-ride F	Baron B	Sili-co SiO <sub>2</sub>	Total Hardness as CaCO <sub>3</sub>	
MIDDLE SANTA ANA R HYDRO SUBUNIT YO1B0																	
CHINO HYDRO SUBAREA																	
SANTA ANA RIVER HYDRO UNIT YO100																	
1S/ 6W-17H 1 S 3- 8-65	--	7.3	272	33 1.65 61	5 0.41 15	14 0.61 23	1 0.03 1	0	139 2.28 84	0.15 6	6 0.17 6	6 0.10 4	0.2	0	--	170 141	103
1S/ 6W-200 1 S 9-30-65	--	7.9	351	44 2.20 57	10 0.82 21	18 0.78 20	2 0.05 1	0	188 3.08 81	10 0.21 6	12 0.34 9	11 0.18 5	0.3	0	--	250 151	151
1S/ 6W-21P 1 S 9-30-65	--	7.5	1111	175 8.73 74	21 1.73 15	30 1.30 11	3 0.08 1	0	221 3.62 31	212 4.41 38	123 3.47 30	14 0.23 2	0.3	0.02	--	910 523	523
1S/ 6W-28M 3 S 3- 8-65	--	7.9	424	58 2.89 68	5 0.41 10	21 0.91 21	2 0.05 1	0	193 3.16 74	7 0.15 4	24 0.68 16	16 0.26 6	0.1	0.02	--	258 165	165
1S/ 6W-28N 1 S 9-30-65	--	7.8	422	58 2.89 65	6 0.49 11	23 1.00 23	2 0.05 1	0	200 3.28 75	7 0.15 3	23 0.65 15	17 0.27 6	0.1	0.01	--	246 169	169
1S/ 6W-29R 1 S 1-28-65	--	7.7	436	60 2.99 68	4 0.33 8	23 1.00 23	2 0.05 1	0	196 3.21 71	7 0.15 3	30 0.85 19	21 0.34 7	0.1	0.04	--	290 166	166
3- 8-65	--	7.7	437	59 2.94 66	5 0.41 9	24 1.04 23	2 0.05 1	0	190 3.11 72	7 0.15 3	27 0.76 18	20 0.32 7	0.2	0	--	273 168	168
6-29-65	--	8.1	423	59 2.94 66	5 0.41 9	23 1.00 23	3 0.08 2	5 0.17 4	188 3.08 68	7 0.15 3	27 0.76 17	22.5 0.36 8	0.3	0.01	--	279 168	168

YO100

SANTA ANA RIVER HYDRO UNIT

YO1B1

MIDDLE SANTA ANA R HYDRO SUBUNIT YO1B0

CHINO HYDRO SUBAREA



TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million							
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Flu- oride F	Hydro- gen B	Sul- fur S	Total Hardness Calc.	
MIDDLE SANTA ANA R HYDRO SUBUNIT YO1B0																	
CHINO HYDRO SUBAREA																	
YO1B1																	
SANTA ANA RIVER HYDRO UNIT																	
1S/ 6W-29R 1 S 9-30-65	--	7.3	430	63 3.14 65	6 0.49 10	26 1.13 23	2 0.05 1	0	201 3.29 68	17 0.35 7	29 0.82 17	24 0.39 8	0.2	0.03	--	295 182	
1S/ 6W-31D 1 S 3-11-65	--	7.9	257	26 1.30 49	9 0.74 28	14 0.61 23	1 0.03 1	0	144 2.36 87	7 0.15 6	5 0.14 5	3 0.05 2	0.2	0	--	170 102	
9-30-65	--	7.6	251	28 1.40 53	6 0.49 19	16 0.70 27	2 0.05 2	0	143 2.34 86	10 0.21 8	5 0.14 5	1 0.02 1	0.2	0.01	--	155 139	
1S/ 6W-31M 1 S 3-11-65	--	7.6	476	53 2.64 55	13 1.07 22	25 1.09 23	1 0.03 1	0	205 3.36 72	6 0.12 3	32 0.90 19	19 0.31 7	0.2	0	--	290 186	
9-29-65	--	7.7	490	53 2.64 52	14 1.15 23	28 1.22 24	2 0.05 1	0	217 3.56 70	8 0.17 3	35 0.99 20	21 0.34 7	0.2	0.01	--	295 190	
1S/ 6W-34M 1 S 1-28-65	--	7.8	444	58 2.89 65	6 0.49 11	23 1.00 23	2 0.05 1	0	184 3.02 66	13 0.27 6	34 0.96 21	20 0.32 7	0.2	0.04	--	272 169	
6-29-65	--	7.9	434	61 3.04 69	5 0.41 9	20 0.87 20	3 0.08 2	0	181 2.97 67	14 0.29 7	30 0.85 19	22.0 0.35 8	0.5	0.01	--	270 173	
1S/ 6W-35A 1 S 6-29-65	--	7.7	384	50 2.50 62	8 0.66 16	19 0.83 21	2 0.05 1	0	198 3.25 80	12 0.25 6	10 0.28 7	17 0.27 7	0.3	0	--	234 158	
																216	

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million							Mineral constituents in parts per million						
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlor- ide Cl	Ni- trate NO <sub>3</sub>	Fluor- ide F	Boron B	Sili- ca SiO <sub>2</sub>	I.D.S. Extrapolated as Computed CaCO <sub>3</sub>	Temp. Hardness as CaCO <sub>3</sub>
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0																	
CHINO HYDRO SUBAREA Y01B1																	
SANTA ANA RIVER HYDRO UNIT Y0100																	
1S/ 7W-8N 1 S 1-28-65	--	7.8	354	47 2.35	10 0.82	13 0.57	1 0.03	1	0	186 3.05	14 0.29	8 0.23	0.3	0.04	--	233 197	159
6-30-65	--	8.0	348	50 2.50	9 0.74	13 0.57	2 0.05	0	0	186 3.05	13 0.27	8 0.23	0.5	0.03	--	196 200	162
1S/ 7W-20A 1 S 6-30-65	--	7.9	374	50 2.50	10 0.82	16 0.70	2 0.05	0	0	178 2.92	17 0.35	8 0.23	0.5	0.02	--	230 218	166
1S/ 7W-21D 1 S 6-30-65	--	8.0	326	37 1.85	8 0.66	23 1.00	1 0.03	0	0	166 2.72	21 0.44	6 0.17	0.6	0.02	--	199 247	126
1S/ 7W-26A 1 S 9-30-65	--	8.4	346	43 2.15	10 0.82	18 0.78	2 0.05	12 0.40	12 0.40	178 2.92	11 0.23	6 0.17	0.2	0.01	--	220 195	149
1S/ 7W-26P 1 S 3-11-65	--	8.0	345	43 2.15	9 0.74	18 0.78	2 0.05	0	0	195 3.20	13 0.27	6 0.17	0.2	0.02	--	210 189	145
9-30-65	--	7.8	346	44 2.20	8 0.66	19 0.83	2 0.05	0	0	202 3.31	15 0.31	5 0.14	0.2	0.01	--	210 194	143
1S/ 7W-30Q 1 S 6-29-65	--	8.1	357	45 2.25	12 0.99	13 0.57	2 0.05	5 0.17	5 0.17	186 3.04	10 0.21	8 0.23	0.4	0.02	--	220 203	162

**TABLE E-1**  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number		Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per percent				Mineral constituents in parts per million				
Date sampled	Calcium				Magne-sium	Sodium	Potas-sium	Carbon-ate	Bicar-bonate	Sulfate	Chlo-ride	Ni-trate	Fuo-ride	Boron	Sili-co	TDS Evap 180°C as Computed	Total Hardness as CaCO <sub>3</sub>	
					Co	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>		
MIDDLE SANTA ANA R HYDRO SUBUNIT YO180																		
CHINO HYDRO SUBAREA YO181																		
1S/ 7W-33E 1 S 6-30-65	94 4.69 57	31 2.55 31	21 0.91 11	2 0.05 1	0	361 5.92	15 0.31 4	55 1.55 20	9.5 0.15 2	0.5	0.03	--	488	362				
1S/ 7W-35B 1 S 9-30-65	47 2.35 59	9 0.74 18	20 0.87 22	2 0.05 1	0	207 3.39 83	8 0.17 4	13 0.37 9	8 0.13 3	0.2	0	--	220	155				
1S/ 8W- 9R 1 S 11-13-64	5 0.25 10	0 2.35 89	54 2.35 89	1 0.03 1	14 0.47 18	88 1.44 56	22 0.46 18	4 0.11 4	5.3 0.09 4	0.6	0.05	--	158	13				
1S/ 8W-14A 1 S 11-13-64	70 3.49 64	16 1.32 24	13 0.57 10	2 0.05 1	0	186 3.05 57	37 0.77 14	11 0.31 6	77 1.24 23	0	0.02	--	347	241				
11-19-64	78 3.89 65	18 1.48 25	12 0.52 9	2 0.05 1	0	186 3.05 53	44 0.92 16	12 0.34 6	87 1.40 25	0.4	0.02	--	365	269				
12- 7-64	54 2.69 59	14 1.15 25	16 0.70 15	2 0.05 1	0	184 3.02 66	24 0.50 11	9 0.25 5	50 0.81 18	0.4	0.04	--	275	192				
12-10-64	55 2.74 57	17 1.40 29	15 0.65 13	2 0.05 1	0	184 3.02 63	28 0.58 12	9 0.25 5	60 0.97 20	0.4	0.03	--	316	207				
12-17-64	53 2.64 57	15 1.23 27	16 0.70 15	2 0.05 1	0	184 3.02 66	25 0.52 11	8 0.23 5	49 0.79 17	0.4	0.03	--	296	194				
													259					

ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million reactivity value				Mineral constituents in parts per million					
				Calcium Mg	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	Total Dissolved Solids TDS Computed CaCO <sub>3</sub>	
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0																	
CHINO HYDRO SUBAREA Y01B1																	
SANTA ANA RIVER HYDRO UNIT Y0100																	
1S/ 8W-14A 1 S 12-23-64	--	7.4	477	58 2.89 59	16 1.32 27	15 0.65 13	2 0.05 1	0	181 2.97 61	28 0.58 12	10 0.28 6	62 1.00 21	0.4	0.04	--	288 280	211
2- 4-65	--	7.8	537	73 3.64 67	14 1.15 21	14 0.61 11	2 0.05 1	0	186 3.05 56	39 0.81 15	13 0.37 7	78 1.26 23	0.4	0.03	--	361 325	240
2-18-65	--	7.7	481	63 3.14 64	13 1.07 22	14 0.61 13	2 0.05 1	0	181 2.97 62	26 0.54 11	10 0.28 6	62 1.00 21	0.6	0.02	--	314 280	211
2-26-65	--	7.5	452	58 2.89 61	14 1.15 24	15 0.65 14	2 0.05 1	0	186 3.05 66	24 0.50 11	9 0.25 5	49 0.79 17	0.4	0.02	--	335 263	202
3- 4-65	--	7.8	459	55 2.74 59	15 1.23 27	14 0.61 13	2 0.05 1	0	183 3.00 64	27 0.56 12	10 0.28 6	54 0.87 18	0.5	0.06	--	289 267	199
3-11-65	--	7.8	455	59 2.94 63	13 1.07 23	14 0.61 13	2 0.05 1	0	181 2.97 63	27 0.56 12	8 0.23 5	57 0.92 20	0.5	0.04	--	306 269	201
3-18-65	--	7.7	519	69 3.44 65	15 1.23 23	13 0.57 11	2 0.05 1	0	183 3.00 56	36 0.75 14	11 0.31 6	78 1.26 24	0.3	0.04	--	319 314	234
3-25-65	--	7.6	458	--	--	--	--	--	--	25 0.52	--	--	--	--	--	299	

**TABLE E-1**  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent			Mineral constituents in parts per million						
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	Total Evaporable as CaCO <sub>3</sub>	
MIDDLE SANTA ANA R HYDRO SUBUNIT YO1B0																	
CHINO HYDRO SUBAREA YO1B1																	
15/ 8W-14A 1 S 4- 5-65	--	7.6	569	--	--	--	--	--	--	--	43 0.90	--	--	--	--	326	
4-16-65	--	7.8	472	--	--	--	--	--	--	--	30 0.62	--	--	--	--	324	
4-23-65	--	7.5	568	--	--	--	--	--	--	--	42 0.87	--	--	--	--	403	
4-29-65	--	7.8	491	--	--	--	--	--	--	--	31 0.65	--	--	--	--	356	
5- 6-65	--	7.6	581	--	--	--	--	--	--	--	50 1.04	--	--	--	--	404	
5-13-65	--	7.3	486	--	--	--	--	--	--	--	31 0.65	--	--	--	--	308	
5-21-65	--	7.8	457	--	--	--	--	--	--	--	24 0.50	--	--	--	--	255	
5-27-65	--	8.1	522	--	--	--	--	--	--	--	38 0.79	--	--	--	--	332	



TABLE E-1

ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents percent				Mineral constituents in parts per million					
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	Total Evaporable as CaCO <sub>3</sub>	
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0																	
CHINO HYDRO SUBAREA Y01B1																	
SANTA ANA RIVER HYDRO UNIT Y0100																	
1S/ 8W-14A 1 S 6- 3-65	--	7.8	532	--	--	--	--	--	--	--	--	--	--	--	--	--	248
6-10-65	--	7.6	479	--	--	--	--	--	--	--	--	--	--	--	--	--	301
6-17-65	--	7.9	571	--	--	--	--	--	--	--	--	--	--	--	--	--	378
7-22-65	--	7.6	448	--	--	--	--	--	--	--	--	--	--	--	--	--	300
8- 6-65	--	7.5	566	77 3.84 65	18 1.48 25	13 0.57 10	2 0.05 1	0	190 3.11 52	46 0.96 16	13 0.37 6	93 1.50 25	0.6	0.04	--	--	399 266
8-12-65	--	7.8	563	--	--	--	--	--	--	45 0.94	--	--	--	--	--	--	389
9-23-65	--	7.8	444	--	--	--	--	--	--	26 0.54	--	--	--	--	--	--	254
9-30-65	--	7.8	446	--	--	--	--	--	--	21 0.44	--	--	--	--	--	--	287

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					Mineral constituents in parts per million									
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fuo- ride F	Boron B	Si- co SiO <sub>2</sub>	TDs Extr. 105°C Computed	Total hardness CaCO <sub>3</sub>	
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0																		
CHINO HYDRO SUBAREA Y01B1																		
1S/ 8W-14A 3 S 7- 1-65	--	7.6	576	82 4.09 69	16 1.32 22	11 0.48 8	3 0.08 1	0	186 3.05 51	51 1.06 18	12 0.34 6	94 1.52 25	0.4	0.01	--	391 361	271	
7-15-65	--	7.8	500	--	--	--	--	--	--	36 0.75	--	--	--	--	--	356		
1S/ 8W-14N 1 S 10- 1-64	--	7.7	303	62 3.09 66	13 1.07 23	11 0.48 10	2 0.05 1	0	192 3.15 69	24 0.50 11	9 0.25 5	43 0.69 15	0.2	0.01	--	265 259	208	
10- 7-64	--	7.8	427	62 3.09 67	12 0.99 21	11 0.48 10	2 0.05 1	0	190 3.11 68	24 0.50 11	8 0.23 5	44 0.71 16	0.2	0.02	--	252 257	204	
10-15-64	--	7.7	436	62 3.09 65	14 1.15 24	11 0.48 10	2 0.05 1	0	192 3.15 66	26 0.54 11	10 0.28 6	50 0.81 17	0.3	0	--	288 270	212	
10-22-64	--	7.6	426	64 3.19 68	12 0.99 21	11 0.48 10	2 0.05 1	0	187 3.06 67	25 0.52 11	9 0.25 5	47 0.76 17	0.2	0.01	--	267 262	209	
10-29-64	--	7.8	443	62 3.09 67	12 0.99 21	11 0.48 10	2 0.05 1	0	189 3.10 68	24 0.50 11	8 0.23 5	44 0.71 16	0.3	0.02	--	283 256	204	
11- 5-64	--	7.7	444	61 3.04 66	13 1.07 23	11 0.48 10	2 0.05 1	0	189 3.10 67	25 0.52 11	9 0.25 5	46 0.74 16	0.2	0.01	--	259 260	206	

TABLE C-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million reactance value					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlor- ide Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sulf- ur S	Total Hard- ness as CaCO <sub>3</sub>		
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0 CHINO HYDRO SUBAREA Y01B1																		
SANTA ANA RIVER HYDRO UNIT Y0100																		
1S/ 8W-14N 1 S 11-12-64	--	7.7	442	61 3.04 67	12 0.99 22	11 0.48 11	2 0.05 1	0	192 3.15 68	23 0.48 10	9 0.25 5	45 0.73 16	0.2	0.01	--	271 258	202	
12-10-64	--	7.8	440	58 2.89 63	14 1.15 25	11 0.48 11	2 0.05 1	0	192 3.15 68	24 0.50 11	9 0.25 5	45 0.73 16	0.3	0.03	--	290 258	202	
12-17-64	--	7.8	475	57 2.84 59	15 1.23 26	16 0.70 15	2 0.05 1	0	189 3.10 66	24 0.50 11	14 0.39 8	44 0.71 15	0.3	0.01	--	288 265	204	
12-23-64	--	7.7	437	57 2.84 62	14 1.15 25	12 0.52 11	2 0.05 1	0	189 3.10 69	21 0.44 10	9 0.25 6	43 0.69 15	0.3	0.02	--	250 251	200	
1-14-65	--	7.5	461	67 3.34 69	12 0.99 21	10 0.43 9	2 0.05 1	0	189 3.10 63	26 0.54 11	11 0.31 6	58.0 0.94 19	0.2	0.02	--	274 279	217	
3- 4-65	--	7.8	446	48 2.40 52	21 1.73 37	11 0.48 10	2 0.05 1	0	190 3.11 68	23 0.48 11	9 0.25 5	44 0.71 16	0.4	0.03	--	278 252	207	
4-29-65	--	7.7	445	--	--	--	--	--	--	23 0.48	--	--	--	--	--	300		
5- 6-65	--	7.7	447	--	--	--	--	--	--	31 0.65	--	--	--	--	--	275		

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in				parts per million equivalents per million				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fuo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	Total I.D.S. Evap. Resi- dues as CaCO <sub>3</sub>	
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0																	
CHINO HYDRO SUBAREA Y01B1																	
SANTA ANA RIVER HYDRO UNIT Y0100																	
15/ 8W-14N 1 S 5-13-65	--	7.2	449	--	--	--	--	--	--	23 0.48	--	--	--	--	--	278	
5-27-65	--	7.4	450	--	--	--	--	--	--	23 0.48	--	--	--	--	--	292	
6- 3-65	--	7.9	451	--	--	--	--	--	--	22 0.46	--	--	--	--	--	290	
6-17-65	--	8.1	446	--	--	--	--	--	--	24 0.50	--	--	--	--	--	294	
6-24-65	--	7.8	449	--	--	--	--	--	--	24 0.50	--	--	--	--	--	287	
7- 1-65	--	7.7	517	63 3.14 65	15 1.23 25	10 0.43 9	2 0.05 1	0	190 3.11 65	28 0.58 12	11 0.31 6	48 0.77 16	0.3	0.06	--	286 271 296	219
7- 8-65	--	7.8	450	--	--	--	--	--	--	26 0.54	--	--	--	--	--	305	
7-15-65	--	7.7	450	--	--	--	--	--	--	28 0.58	--	--	--	--	--		

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million percent reactance value				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Nit- rate NO <sub>3</sub>	Fluo- ride F	Baron B	Sili- ca SiO <sub>2</sub>	Total Hardness as CaCO <sub>3</sub>	
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0																	
CHINO HYDRO SUBAREA																	
SANTA ANA RIVER HYDRO UNIT																	
Y0100																	
1S/ 8W-14N 1 S 7-22-65	--	7.8	452	--	--	--	--	--	--	28 0.58	--	--	--	--	--	286	
8- 6-65	--	7.8	449	62 3.09 64	14 1.15 24	12 0.52 11	2 0.05 1	0	198 3.25 67	26 0.54 11	9 0.25 5	50 0.81 17	0.5	0.03	--	298 273	212
8-12-65	--	7.8	460	--	--	--	--	--	--	26 0.54	--	--	--	--	--	304	
8-19-65	--	7.8	453	--	--	--	--	--	--	28 0.58	--	--	--	--	--	294	
8-26-65	--	7.7	451	--	--	--	--	--	--	27 0.56	--	--	--	--	--	294	
9- 2-65	--	8.0	452	64 3.19 66	13 1.07 22	12 0.52 11	2 0.05 1	0	190 3.11 67	24 0.50 11	9 0.25 5	50 0.81 17	0.3	0.01	--	266 268	213
9-16-65	--	7.9	452	--	--	--	--	--	--	28 0.58	--	--	--	--	--	295	
9-23-65	--	7.8	455	--	--	--	--	--	--	28 0.58	--	--	--	--	--	265	



TABLE E-1

ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					Mineral constituents in parts per million									
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- co SiO <sub>2</sub>	TDS Evap 180°C Evap 100°C Computed	Total Hardness as CaCO <sub>3</sub>	
MIDDLE SANTA ANA R HYDRO SUBUNIT Y0180																		
CHINO HYDRO SUBAREA Y0181																		
SANTA ANA RIVER HYDRO UNIT Y0100																		
1S/ 8W-15J 1 S 10- 1-64	--	7.6	384	55 2.74 66	10 0.82 20	12 0.52 13	2 0.05 1	0	182 2.98 71	23 0.48 11	6 0.17 4	34 0.55 13	0.2	0.01	--	--	178 243 232	
10- 5-64	--	7.8	385	56 2.79 66	11 0.90 21	11 0.48 11	2 0.05 1	0	177 2.90 71	20 0.42 10	7 0.20 5	35 0.56 14	0.2	0.01	--	--	185 162 229	
10- 7-64	--	7.8	382	54 2.69 65	11 0.90 20	12 0.52 13	2 0.05 1	0	179 2.93 72	19 0.40 10	6 0.17 4	35 0.56 14	0.2	0.02	--	--	180 222 227	
10-15-64	--	7.9	388	55 2.74 65	11 0.90 21	12 0.52 12	2 0.05 1	0	179 2.93 71	22 0.46 11	8 0.23 6	33 0.53 13	0.4	0	--	--	182 258 231	
10-22-64	--	7.6	383	55 2.74 65	11 0.90 21	12 0.52 12	2 0.05 1	0	177 2.90 71	21 0.44 11	7 0.20 5	34 0.55 13	0.6	0.02	--	--	182 222 230	
10-29-64	--	7.9	397	55 2.74 65	11 0.90 21	12 0.52 12	2 0.05 1	0	184 3.02 73	21 0.44 11	6 0.17 4	32 0.52 13	0.3	0.03	--	--	182 301 230	
11- 5-64	--	7.7	401	54 2.69 63	12 0.99 23	12 0.52 12	2 0.05 1	0	181 2.97 71	23 0.48 11	7 0.20 5	33 0.53 13	0.2	0.01	--	--	184 241 232	
11-12-64	--	7.7	418	53 2.64 63	12 0.99 24	12 0.52 12	2 0.05 1	0	181 2.97 71	24 0.50 12	7 0.20 5	31 0.50 12	0.2	0.01	--	--	182 252 230	

Y0100

SANTA ANA RIVER HYDRO UNIT

MIDDLE SANTA ANA R HYDRO SUBUNIT Y0180

CHINO HYDRO SUBAREA

Y0181

TABLE E-1

ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million						
				Calcium	Magne- sium	Sodium	Potas- sium	Carbon- ate	Bicar- bonate	Sulfate	Chlo- ride	Ni- trate	Fuo- ride	Boron	Sulf- ate	Total Hardness as CaCO <sub>3</sub>
Date sampled				Co	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SO <sub>2</sub>	
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0																
CHINO HYDRO SUBAREA Y01B1																
1S/ 8W-15J 1 S 11-19-64	--	7.8	406	55 2.74	11 0.90	13 0.57	2 0.05	0	186 3.05	21 0.44	0.17	31 0.50	0.4	0.01	--	249 182
				64	21	13	1		73	11	4	12				231
12-23-64	--	7.6	466	64 3.19	14 1.15	11 0.48	2 0.05	0	194 3.18	28 0.58	10 0.28	44 0.71	0.3	0.02	--	248 217
				66	24	10	1		67	12	6	15				269
1-13-65	--	7.7	450	70 3.49	11 0.90	10 0.43	2 0.05	0	163 2.67	46 0.96	21 0.59	43 0.69	0.4	0.02	--	292 220
				72	18	9	1		54	20	12	14				284
2-18-65	--	7.7	520	74 3.69	12 0.99	10 0.43	2 0.05	0	155 2.54	49 1.02	27 0.76	50 0.81	0.3	0	--	342 234
				72	19	8	1		50	20	15	16				301
2-26-65	--	7.6	550	78 3.89	13 1.07	10 0.43	2 0.05	0	150 2.46	64 1.33	32 0.90	49 0.79	0.4	0.08	--	437 248
				72	20	8	1		45	24	16	14				322
3- 4-65	--	7.8	537	74 3.69	13 1.07	10 0.43	2 0.05	0	159 2.61	56 1.17	23 0.65	55 0.89	0.5	0.04	--	351 238
				70	20	8	1		49	22	12	17				312
3-25-65	--	7.6	495	--	--	--	--	--	--	43 0.90	--	--	--	--	--	305
4- 5-65	--	7.6	445	--	--	--	--	--	--	31 0.65	--	--	--	--	--	245

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	Total Evap. 180°C Evap. 105°C Computed CaCO <sub>3</sub>	
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0 CHINO HYDRO SUBAREA Y01B1 SANTA ANA RIVER HYDRO UNIT Y0100																	
1S/ 8W-15J 1 S 4-23-65	--	7.6	460	--	--	--	--	--	--	--	--	34 0.71	--	--	--	--	316
4-29-65	--	7.8	455	--	--	--	--	--	--	--	--	24 0.50	--	--	--	--	306
5- 5-65	--	7.8	430	--	--	--	--	--	--	--	--	25 0.52	--	--	--	--	262
5-13-65	--	7.4	425	--	--	--	--	--	--	--	--	27 0.56	--	--	--	--	291
5-21-65	--	7.7	426	--	--	--	--	--	--	--	--	28 0.58	--	--	--	--	289
5-27-65	--	8.0	424	--	--	--	--	--	--	--	--	29 0.60	--	--	--	--	264
6- 3-65	--	7.8	426	--	--	--	--	--	--	--	--	26 0.54	--	--	--	--	267
6-10-65	--	7.6	428	--	--	--	--	--	--	--	--	29 0.60	--	--	--	--	267

TABLE E-1

ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	Total Evap. Residue as CaCO <sub>3</sub>	
MIDDLE SANTA ANA R HYDRO SUBUNIT YO1B0																	
CHINO HYDRO SUBAREA YO1B1																	
SANTA ANA RIVER HYDRO UNIT YO100																	
1S/ 8W-15J 1 S 6-17-65	--	7.9	416	--	--	--	--	--	--	--	27 0.56	--	--	--	--	281	
6-24-65	--	7.9	416	--	--	--	--	--	--	--	28 0.58	--	--	--	--	257	
7- 1-65	--	7.7	413	56 2.79 64	12 0.99 23	11 0.48 11	3 0.08 2	0	176 2.88 66	30 0.62 14	10 0.28 6	38 0.61 14	0.2	0	--	259 189	
7- 8-65	--	7.4	400	--	--	--	--	--	--	28 0.58	--	--	--	--	--	276	
7-15-65	--	7.7	415	--	--	--	--	--	--	26 0.54	--	--	--	--	--	281	
7-22-65	--	7.8	415	--	--	--	--	--	--	30 0.62	--	--	--	--	--	266	
7-29-65	--	7.7	416	--	--	--	--	--	--	29 0.60	--	--	--	--	--	267	
8- 6-65	--	7.7	414	56 2.79 63	13 1.07 24	12 0.52 12	2 0.05 1	0	181 2.97 67	29 0.60 13	9 0.25 6	39 0.63 14	0.4	0.03	--	269 193	
																249	

TABLE E-1

ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reactance value				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fuo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	TDS Evap- orated Resid- ue Compu- ted CaCO <sub>3</sub>	
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0																	
CHINO HYDRO SUBAREA Y01B1																	
15/ 8W-15J 1 S 8-12-65	--	7.7	412	--	--	--	--	--	--	27 0.56	--	--	--	--	--	270	
8-19-65	--	7.9	413	--	--	--	--	--	--	28 0.58	--	--	--	--	--	286	
8-26-65	--	7.9	409	--	--	--	--	--	--	27 0.56	--	--	--	--	--	274	
9- 2-65	--	7.8	408	56 2.79	12 0.99	14 0.61	2 0.05	0	178 2.92	26 0.54	14 0.39	36 0.58	0.4	0.03	--	256 189	
9-10-65	--	8.1	401	63	22	14	1	--	66	12 25	9	13	--	--	--	248 250	
9-16-65	--	8.1	404	--	--	--	--	--	--	26 0.54	--	--	--	--	--	245	
9-23-65	--	7.8	406	--	--	--	--	--	--	26 0.54	--	--	--	--	--	244	
9-30-65	--	7.8	405	--	--	--	--	--	--	21 0.44	--	--	--	--	--	268	



TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent reactance value					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fuo- ride F	Boro- co B	Sili- co SiO <sub>2</sub>	Total Hardness as CaCO <sub>3</sub>		
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0																		
CHINO HYDRO SUBAREA Y01B1																		
SANTA ANA RIVER HYDRO UNIT Y0100																		
1S/ 8W-15P 2 S 10- 2-64	--	7.8	397	59 2.94 67	11 0.90 21	11 0.48 11	2 0.05 1	0	192 3.15 74	19 0.40 9	6 0.17 4	32 0.52 12	0.3	0.02	--	212 235	192	
10-22-64	--	7.6	393	55 2.74 62	14 1.15 26	11 0.48 11	2 0.05 1	0	190 3.11 73	19 0.40 9	8 0.23 5	31 0.50 12	0.3	0.01	--	225 234	195	
12- 7-64	--	7.8	375	48 2.40 60	10 0.82 21	16 0.70 18	2 0.05 1	0	184 3.02 76	20 0.42 11	6 0.17 4	21 0.34 9	0.3	0.05	--	221 214	161	
12-10-64	--	7.9	377	50 2.50 63	9 0.74 19	16 0.70 18	2 0.05 1	0	186 3.05 77	19 0.40 10	6 0.17 4	21.5 0.35 9	0.3	0.03	--	245 215	162	
12-17-64	--	7.8	377	47 2.35 60	10 0.82 21	16 0.70 18	2 0.05 1	0	186 3.05 77	20 0.42 11	5 0.14 4	20.5 0.33 8	0	0	--	232 212	159	
12-30-64	--	7.9	383	50 2.50 63	9 0.74 19	16 0.70 18	2 0.05 1	0	184 3.02 76	21 0.44 11	6 0.17 4	22 0.35 9	0.4	0.01	--	238 217	162	
1-14-65	--	7.9	379	49 2.45 62	9 0.74 19	16 0.70 18	2 0.05 1	0	184 3.02 75	22 0.46 11	6 0.17 4	22.5 0.36 9	0.4	0.01	--	227 217	160	
1-21-65	--	7.7	379	51 2.54 64	9 0.74 19	15 0.65 16	2 0.05 1	0	186 3.05 77	19 0.40 10	6 0.17 4	22 0.35 9	0.2	0.01	--	236 216	164	

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent				Mineral constituents in parts per million				
				Calcium	Magne-sium	Sodium	Potas-sium	Carbon-ate	Bicar-bonate	Sulfate	Chlor-ide	Ni-tro	Fluo-ride	Boron	Sili-co	Total TDS Evap 105°C or as CaCO3
Date sampled				Co	Mg	Na	K	CO3	HCO3	SO4	Cl	NO3	F	B	SiO2	Computed
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0																
CHINO HYDRO SUBAREA Y01B1																
SANTA ANA RIVER HYDRO UNIT Y0100																
1S/ 8W-15P 2 S 1-28-65	--	7.4	383	52 2.59 63	9 0.74 18	16 0.70 17	2 0.05 1	0	189 3.10 78	20 0.42 11	5 0.14 4	21 0.34 9	0.3	0.03	--	204 218
2- 4-65	--	7.9	379	46 2.30 58	11 0.90 23	16 0.70 18	2 0.05 1	0	186 3.05 76	21 0.44 11	7 0.20 5	20 0.32 8	0.3	0.02	--	247 160
2-11-65	--	7.9	383	52 2.59 65	8 0.66 17	16 0.70 18	2 0.05 1	0	192 3.15 78	20 0.42 10	5 0.14 3	21 0.34 8	0.2	0.03	--	240 163
2-18-65	--	7.8	376	51 2.54 63	9 0.74 18	16 0.70 17	2 0.05 1	0	181 2.97 76	18 0.37 10	7 0.20 5	22 0.35 9	0.3	0	--	242 164
2-26-65	--	7.7	381	53 2.64 67	7 0.58 15	15 0.65 17	2 0.05 1	0	186 3.05 76	18 0.37 9	10 0.28 7	20 0.32 8	0.3	0.02	--	273 161
3- 4-65	--	7.9	381	47 2.35 59	11 0.90 23	16 0.70 18	2 0.05 1	0	183 3.00 76	21 0.44 11	6 0.17 4	22 0.35 9	0.4	0.05	--	237 163
3-11-65	--	7.8	382	53 2.64 68	6 0.49 13	16 0.70 18	2 0.05 1	0	183 3.00 75	21 0.44 11	7 0.20 5	23.5 0.38 9	0.4	0	--	247 157
3-18-65	--	7.8	380	52 2.59 64	9 0.74 18	15 0.65 16	2 0.05 1	0	181 2.97 75	20 0.42 11	6 0.17 4	24 0.39 10	0.2	0.01	--	216 167

TABLE E-1

## ANALYSES OF GROUND WATER

## SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				million per million				Mineral constituents in parts per million			
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	Iron	Copper	Lead	Address
Date sampled				Ca	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>	Fe	Cu	Pb	City
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0																			
CHINO HYDRO SUBAREA Y01B1																			
SANTA ANA RIVER HYDRO UNIT Y0100																			
1S/ 8W-15P 2 S 3-25-65	--	7.7	384	--	--	--	--	--	--	20 0.42	--	--	--	--	--	--	--	--	244
4- 5-65	--	7.8	385	--	--	--	--	--	--	19 0.40	--	--	--	--	--	--	--	--	200
5-27-65	--	8.6	492	--	--	--	--	--	--	36 0.75	--	--	--	--	--	--	--	--	300
7- 1-65	--	7.8	399	55 2.74	11 0.95	13 0.57	2 0.05	0	190 3.11	26 0.54	9 0.25	25 0.40	0.3	0	--	0.3	--	259	182
7-15-65	--	7.7	384	--	--	--	--	--	--	23 0.48	--	--	--	--	--	--	--	--	235
1S/ 8W-15P 3 S 10- 1-64	--	7.7	364	50 2.50	9 0.74	16 0.70	2 0.05	0	182 2.98	20 0.42	6 0.17	20 0.32	0.2	0	--	0.2	--	162	162
19- 7-64	--	7.8	356	50 2.50	9 0.74	16 0.70	2 0.05	0	184 3.02	20 0.42	5 0.14	20 0.32	0.1	0.02	--	0.1	--	162	162
19-22-64	--	7.7	357	47 2.35	11 0.90	15 0.65	1 0.03	0	182 2.98	14 0.40	6 0.17	20 0.32	0.3	0.02	--	0.3	--	163	163

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per percent				Mineral constituents in parts per million					
				Calcium	Magne-sium Mg	Sodium Na	Potas-sium K	Carbon-ate CO <sub>3</sub>	Bicar-bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo-ride Cl	Ni- trate NO <sub>3</sub>	Fluo-ride F	Boron B	Sili-ca SiO <sub>2</sub>	Total I.O.S. Evap 180°C as Computed CaCO <sub>3</sub>		
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0																		
CHINO HYDRO SUBAREA Y01B1																		
SANTA ANA RIVER HYDRO UNIT Y0100																		
1S/ 8W-15P 3 S 11- 5-64	--	7.8	373	49 2.45 62	9 0.74 19	16 0.70 18	2 0.05 1	0	184 3.02 77	20 0.42 11	5 0.14 4	21 0.34 9	0.2	0.02	--	233 213	160	
7-22-65	--	7.9	387	--	--	--	--	--	--	23 0.48	--	--	--	--	--	250		
7-29-65	--	7.8	417	--	--	--	--	--	--	27 0.56	--	--	--	--	--	273		
8- 6-65	--	7.9	392	53 2.64 62	11 0.90 21	15 0.65 15	2 0.05 1	0	190 3.11 74	24 0.50 12	7 0.20 5	26 0.42 10	0.4	0.03	--	260 232	177	
8-12-65	--	7.9	390	--	--	--	--	--	--	23 0.48	--	--	--	--	--	260		
1S/ 8W-15P 5 S 10- 7-64	--	7.8	397	59 2.94 67	11 0.90 21	11 0.48 11	2 0.05 1	0	192 3.15 74	19 0.40 9	6 0.17 4	32 0.52 12	0.3	0.02	--	212 235	192	
10-22-64	--	7.6	323	55 2.74 62	14 1.15 26	11 0.48 11	2 0.05 1	0	190 3.11 73	19 0.40 9	8 0.23 5	31 0.50 12	0.3	0.01	--	225 234	195	
7- 8-65	--	7.8	431	63 3.14 69	12 0.99 22	9 0.39 9	2 0.05 1	0	193 3.16 68	27 0.56 12	9 0.25 5	40 0.65 14	0.3	0.04	--	281 257	207	

TABLE E-1

ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				million per million reactivity value				Mineral constituents in parts per million			
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fos- phate P	Sol- ids S <sub>T</sub>	Total Hardness TDS	Evap 180°C Exp 105°C Calc'd			
MIDDLE SANTA ANA R HYDRO SUBUNIT Y0180																			
CHINO HYDRO SUBAREA Y01B1																			
SANTA ANA RIVER HYDRO UNIT Y0100																			
1S/ 8W-15P 5 S 7-28-65	--	7.7	420	--	--	--	--	--	--	24 0.50	--	--	--	--	269				
8-12-65	--	7.8	413	58 2.89 64	13 1.07 24	11 0.48 11	2 0.05 1	0	195 3.20 70	21 0.44 10	14 0.39 9	34 0.55 12	0.4	0.02	286 198				
8-19-65	--	7.8	415	--	--	--	--	--	--	21 0.44	--	--	--	--	266				
8-26-65	--	7.8	438	--	--	--	--	--	--	27 0.56	--	--	--	--	302				
9-10-65	--	8.2	390	--	--	--	--	--	--	20 0.42	--	--	--	--	243				
1S/ 8W-15Q 2 S 10- 1-64	--	7.7	382	51 2.54 62	9 0.74 18	18 0.78 19	2 0.05 1	0	176 2.88 71	25 0.52 13	6 0.17 4	31 0.50 12	0.2	0.01	164 147 229				
10- 7-64	--	7.8	357	48 2.40 60	8 0.66 17	20 0.87 22	2 0.05 1	0	169 2.77 72	22 0.46 12	8 0.23 6	25 0.40 10	0.2	0.02	153 162 210				
10-15-64	--	7.8	424	59 2.94 65	10 0.82 18	16 0.70 16	2 0.05 1	0	190 3.11 68	29 0.60 13	9 0.25 5	38 0.61 13	0.4	0	188 185 257				



TABLE E-1

ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boran B	Symm- co SiO <sub>2</sub>
Date sampled															Evap 180°C Evap 105°C as CaCO <sub>3</sub>
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0															
CHINO HYDRO SUBAREA Y01B1															
1S/ 8W-15Q 2 S 10-22-64	--	7.7	380	52 2.59 62	9 0.74 18	18 0.78 19	2 0.05 1	0	175 2.87 70	24 0.50 12	7 0.20 5	32 0.52 13	0.3	0.05	--
11- 5-64	--	7.7	449	61 3.04 66	11 0.90 19	15 0.65 14	2 0.05 1	0	189 3.10 68	30 0.62 14	6 0.17 4	43 0.69 15	0.2	0.01	--
12-30-64	--	7.8	473	72 3.59 71	12 0.99 20	10 0.43 8	2 0.05 1	0	212 3.47 68	35 0.73 14	9 0.25 5	41 0.66 13	0.4	0.02	--
1-14-65	--	7.4	389	46 2.30 57	11 0.90 22	18 0.78 19	2 0.05 1	0	176 2.88 70	25 0.52 13	8 0.23 6	28.8 0.46 11	0.2	0.02	--
1-21-65	--	7.7	385	50 2.50 61	9 0.74 18	18 0.78 19	2 0.05 1	0	171 2.80 72	22 0.46 12	6 0.17 4	28.8 0.46 12	0.2	0.01	--
1-28-65	--	7.7	382	50 2.50 63	7 0.58 15	19 0.83 21	2 0.05 1	0	171 2.80 74	20 0.42 11	6 0.17 4	25 0.40 11	0.3	0.02	--
2-11-65	--	7.8	521	77 3.84 71	13 1.07 20	11 0.48 9	2 0.05 1	0	238 3.90 70	36 0.75 14	11 0.31 6	36 0.58 10	0.3	0.02	--
2-18-65	--	7.8	384	49 2.45 61	8 0.66 17	19 0.83 21	2 0.05 1	0	171 2.80 73	21 0.44 11	7 0.20 5	26 0.42 11	0.3	0	--
															132 230
															277 261
															309 286
															233 226
															254 220
															219 213
															332 303
															259 216

TABLE E-1

ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				parts per million				Mineral constituents in parts per million			
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fos- phate P	Bor- on B	Sol- ids SP <sub>2</sub>	Evap- orated SP <sub>2</sub>	Total hardness TDS		
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0																			
CHINO HYDRO SUBAREA Y01B1																			
SANTA ANA RIVER HYDRO UNIT Y0100																			
15/ 8W-150 2 S 2-26-65	--	7.7	386	50 2.50 62	8 0.66 16	19 0.83 21	2 0.05	2	0	173 2.84 72	21 0.44 11	9 0.25 6	26 0.42 11	0.3	0.01	--	286 220	158	
3-11-65	--	7.8	395	51 2.54 62	9 0.74 18	18 0.78 19	2 0.05	2	0	176 2.88 70	25 0.52 13	9 0.25 6	30 0.48 12	0.4	0	--	260 231	164	
3-18-65	--	7.6	385	50 2.50 61	9 0.74 18	19 0.83 20	2 0.05	2	0	173 2.84 71	23 0.48 12	8 0.23 6	29 0.47 12	0.5	0.02	--	225 225	162	
3-25-65	--	7.8	390	--	--	--	--	--	--	--	24 0.50	--	--	--	--	--	248		
4- 5-65	--	7.8	387	--	--	--	--	--	--	--	22 0.46	--	--	--	--	--	217		
4-16-65	--	7.9	392	--	--	--	--	--	--	--	23 0.48	--	--	--	--	--	259		
4-23-65	--	7.7	509	--	--	--	--	--	--	--	32 0.67	--	--	--	--	--	354		
4-29-65	--	7.8	514	--	--	--	--	--	--	--	34 0.71	--	--	--	--	--	365		

TABLE E-1

## ANALYSES OF GROUND WATER

SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reactance value				Mineral constituents in parts per million			
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica
Date sampled				Co	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>
MIDDLE SANTA ANA R HYDRO SUBUNIT Y0100															
CHINO HYDRO SUBAREA Y01B1															
1S/ 8W-15Q 2 S 5-27-65	--	8.0	399	--	--	--	--	--	--	--	23 0.48	--	--	--	--
6-10-65	--	7.8	391	--	--	--	--	--	--	23 0.48	--	--	--	--	--
6-17-65	--	8.0	494	--	--	--	--	--	--	34 0.71	--	--	--	--	--
6-24-65	--	7.8	499	--	--	--	--	--	--	33 0.69	--	--	--	--	--
7- 1-65	--	7.8	447	63 3.14 67	11 0.90 19	13 0.57 12	2 0.05 1	0	190 3.11 66	29 0.60 13	10 0.28 6	45 0.73 15	0.3	0.06	--
7- 8-65	--	7.8	389	--	--	--	--	--	--	23 0.48	--	--	--	--	--
7-15-65	--	7.7	500	--	--	--	--	--	--	26 0.54	--	--	--	--	--
7-22-65	--	7.5	385	--	--	--	--	--	--	25 0.52	--	--	--	--	--
														Total hardness as CaCO <sub>3</sub>	
														Evap 180°C as CaCO <sub>3</sub>	
														Evap 105°C as CaCO <sub>3</sub>	
														Computed	
														202	
														234	
														232	
														321	
														312	
														298	
														267	
														262	
														287	
														250	

TABLE E-1

ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reactance value				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	TDS Evap 180°C Evap 105°C Computed CaCO <sub>3</sub>	
MIDDLE SANTA ANA R HYDRO SUBUNIT YO1B0 CHINO HYDRO SUBAREA YO1B1																	
15/ 8W-150 2 S 8- 6-65	--	7.8	387	49 2.45 59	11 0.90 22	18 0.78 19	2 0.05 1	0	184 3.02 71	24 0.50 12	8 0.23 5	33 0.53 12	0.4	0.02	--	263 236 241	
8-12-65	--	7.8	382	--	--	--	--	--	--	23 0.48	--	--	--	--	--	250	
8-19-65	--	7.9	382	--	--	--	--	--	--	26 0.54	--	--	--	--	--	252	
8-26-65	--	7.9	381	--	--	--	--	--	--	23 0.48	--	--	--	--	--	233	
9-13-65	--	8.3	381	--	--	--	--	--	--	22 0.46	--	--	--	--	--	275	
9-23-65	--	7.7	469	--	--	--	--	--	--	33 0.69	--	--	--	--	--	295	
9-30-65	--	7.8	463	--	--	--	--	--	--	25 0.52	--	--	--	--	--	244	
15/ 8W-23A 3 S 10- 1-64	--	7.6	506	68 3.39 62	18 1.48 27	12 0.52 10	2 0.05 1	0	190 3.11 59	33 0.69 13	10 0.28 5	75 1.21 23	0.2	0.02	--	318 312	

TABLE E-1

## ANALYSES OF GROUND WATER

## SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				Mineral constituents in parts per million				Total hardness as CaCO <sub>3</sub>	
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica		LOI
Date sampled				Co	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>	Computed	
MIDDLE SANTA ANA R HYDRO SUBUNIT Y0100																	
CHINO HYDRO SUBAREA Y01B1																	
1S/ 8W-23A 3 S 10- 7-64	--	7.7	496	71 3.54 66	15 1.23 23	12 0.52 10	2 0.05 1	0	187 3.06 59	30 0.62 12	12 0.34 7	73 1.18 23	0.3	0.03	--	--	239 294 307
10-15-64	--	7.7	505	71 3.54 66	15 1.23 23	12 0.52 10	2 0.05 1	0	190 3.11 58	33 0.69 13	12 0.34 6	73 1.18 22	0.4	0	--	--	239 329 312
10-22-64	--	7.6	493	71 3.54 66	15 1.23 23	12 0.52 10	2 0.05 1	0	184 3.02 58	33 0.69 13	11 0.31 6	75 1.21 23	0.4	0.02	--	--	239 307 310
10-29-64	--	7.8	503	68 3.39 64	16 1.32 25	12 0.52 10	2 0.05 1	0	184 3.02 58	32 0.67 13	11 0.31 6	73 1.18 23	0.3	0.02	--	--	236 334 305
11- 5-64	--	7.6	524	70 3.49 64	16 1.32 24	13 0.57 10	2 0.05 1	0	189 3.10 58	32 0.67 12	12 0.34 6	78 1.26 23	0.3	0	--	--	241 308 316
11-12-64	--	7.9	491	65 3.24 65	14 1.15 23	12 0.52 10	2 0.05 1	0	181 2.97 58	35 0.73 14	11 0.31 6	68 1.10 22	0.3	0.01	--	--	220 329 296
11-25-64	--	7.6	547	74 3.69 66	16 1.32 23	13 0.57 10	2 0.05 1	0	186 3.05 55	39 0.81 15	12 0.34 6	84 1.35 24	0.3	0.01	--	--	251 365 332
1-14-65	--	7.8	397	54 2.69 60	15 1.23 27	12 0.52 12	2 0.05 1	0	199 3.26 71	18 0.37 8	9 0.25 5	42.5 0.69 15	0.2	0.02	--	--	196 261 251



ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					Mineral constituents in parts per million									
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	Total I.D.S. Evap 180°C Evap 105°C as CaCO <sub>3</sub>		
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0																		
CHINO HYDRO SUBAREA																		
Y01B1																		
SANTA ANA RIVER HYDRO UNIT																		
Y0100																		
1S/ 8W-23A 3 S 1-28-65	--	7.6	526	71 3.54 67	1.15 22	0.52 10	0.05 1	2	0	189 3.10 58	31 0.65 12	9 0.25 5	0.3	0.02	--	346 313	235	
2-18-65	--	7.8	535	72 3.59 67	1.23 23	0.52 10	0.05 1	2	0	184 3.02 57	32 0.67 13	11 0.31 6	0.4	0.01	--	350 314	241	
3- 4-65	--	7.8	532	70 3.49 65	1.32 25	0.52 10	0.05 1	2	0	186 3.05 57	35 0.73 14	11 0.31 6	0.5	0.03	--	336 318	241	
4-16-65	--	7.7	538	--	--	--	--	--	--	--	37 0.77	--	--	--	--	373		
4-23-65	--	7.6	531	--	--	--	--	--	--	--	31 0.65	--	--	--	--	366		
4-29-65	--	7.8	529	--	--	--	--	--	--	--	32 0.67	--	--	--	--	366		
5- 6-65	--	7.5	522	--	--	--	--	--	--	--	34 0.71	--	--	--	--	433		
5-21-65	--	7.7	524	--	--	--	--	--	--	--	34 0.71	--	--	--	--	324		

Y0100

SANTA ANA RIVER HYDRO UNIT

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million reactance value				Mineral constituents in parts per million					
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- co SiO <sub>2</sub>	Total Evap. 180°C Evap. 105°C as CaCO <sub>3</sub>	
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0																	
CHINO HYDRO SUBAREA Y01B1																	
1S/ 8W-23A 3 S 5-27-65	--	7.9	525	--	--	--	--	--	--	--	35 0.73	--	--	--	--	351	
6- 3-65	--	7.7	515	--	--	--	--	--	--	--	32 0.67	--	--	--	--	340	
6-10-65	--	7.6	528	--	--	--	--	--	--	--	33 0.69	--	--	--	--	333	
6-17-65	--	7.8	561	--	--	--	--	--	--	--	45 0.94	--	--	--	--	401	
7- 1-65	--	7.5	519	71 3.54 67	15 1.23 23	11 0.48 9	2 0.05 1	0	186 3.05 57	35 0.73 14	12 0.34 6	75 1.21 23	0.3	0.06	--	352 313	239
7- 8-65	--	7.7	517	--	--	--	--	--	--	33 0.69	--	--	--	--	--	357	
7-15-65	--	7.7	516	--	--	--	--	--	--	32 0.67	--	--	--	--	--	342	
7-22-65	--	7.8	497	--	--	--	--	--	--	35 0.73	--	--	--	--	--	333	

ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million percent reactance value					Mineral constituents in parts per million				
				Calcium mg	Magnesium mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	Total Hardness at 100°C as CaCO <sub>3</sub>		
MIDDLE SANTA ANA R HYDRO SUBUNIT Y0180																		
CHINO HYDRO SUBAREA Y0181																		
SANTA ANA RIVER HYDRO UNIT Y0100																		
15/ 8W-23A 3 S 7-29-65	--	7.6	511	--	--	--	--	--	--	35 0.73	--	--	--	--	--	--	431	
8- 6-65	--	7.8	523	71 3.54 66	15 1.23 23	13 0.57 11	2 0.05 1	0	195 3.20 58	34 0.71 13	11 0.31 6	78 1.26 23	0.5	0.03	--	335 320	239	
8-12-65	--	7.7	521	--	--	--	--	--	--	35 0.73	--	--	--	--	--	--	333	
8-19-65	--	7.8	516	--	--	--	--	--	--	33 0.69	--	--	--	--	--	--	343	
8-26-65	--	7.7	513	--	--	--	--	--	--	34 0.71	--	--	--	--	--	--	352	
9- 2-65	--	8.1	526	70 3.49 64	16 1.32 24	13 0.57 10	2 0.05 1	0	190 3.11 58	33 0.69 13	12 0.34 6	75 1.21 23	0.4	0.01	--	301 315	241	
9-10-65	--	8.1	501	--	--	--	--	--	--	33 0.69	--	--	--	--	--	--	310	
9-23-65	--	7.7	521	--	--	--	--	--	--	34 0.71	--	--	--	--	--	--	322	

**TABLE E-1**  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per percent			Mineral constituents in parts per million						
				Calcium	Magne-sium	Sodium	Potas-sium	Carbon-ate	Bicar-bonate	Sulfate	Chlo-ride	Ni-trate	Ful-vate	Boron	Sul-fate	Total Hardness as CaCO <sub>3</sub>		
MIDDLE SANTA ANA R HYDRO SUBUNIT YO100																		
CHINO HYDRO SUBAREA YO101																		
1S/ 8W-23A 3 S 9-30-65	--	7.8	517	--	--	--	--	--	--	28 0.58	--	--	--	--	--	340		
1S/ 8W-24E 1 S 10-1-64	--	7.6	507	72 3.59 67	15 1.23 23	12 0.52 10	2 0.05 1	0	185 3.03 57	31 0.65 12	13 0.37 7	76 1.23 23	0.2	0.01	--	241 233 312		
10- 7-64	--	7.7	500	71 3.54 66	15 1.23 23	12 0.52 10	2 0.05 1	0	187 3.06 58	31 0.65 12	13 0.37 7	75 1.21 23	0.2	0.02	--	239		
10-15-64	--	7.8	504	71 3.54 65	16 1.32 24	12 0.52 10	2 0.05 1	0	184 3.02 56	32 0.67 13	16 0.45 8	75 1.21 23	0.4	0.01	--	243		
10-22-64	--	7.6	497	72 3.59 68	14 1.15 22	12 0.52 10	2 0.05 1	0	182 2.98 57	29 0.60 12	13 0.37 7	71 1.24 24	0.5	0.02	--	237		
10-79-64	--	7.8	520	73 3.64 69	13 1.07 20	12 0.52 10	2 0.05 1	0	189 3.10 58	30 0.62 12	13 0.37 7	75 1.21 23	0.1	0.03	--	236		
11- 5-64	--	7.9	519	72 3.59 68	14 1.15 22	12 0.52 10	2 0.05 1	0	186 3.05 58	29 0.60 11	13 0.37 7	77 1.24 24	0.3	0.02	--	237		
11-12-64	--	7.9	522	70 3.49 66	14 1.15 22	13 0.57 11	2 0.05 1	0	189 3.10 58	31 0.65 12	13 0.37 7	77 1.24 23	0.3	0.02	--	232		

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per percent			Mineral constituents in parts per million						
				Calcium Ca	Magne- sium Mg	Sodium Na	Potash K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlor- ide Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	TDSS Evap 105°C by Comput	Total Dissolved Solids by Gravimetry	
MIDDLE SANTA ANA R HYDRO SUBUNIT Y0180																		
CHINO HYDRO SUBAREA Y0181																		
1S/ 8W-24E 1 S 4-23-65	--	7.6	510	--	--	--	--	--	--	--	26 0.54	--	--	--	--	--	357	
5-27-65	--	8.0	520	--	--	--	--	--	--	--	30 0.62	--	--	--	--	--	343	
7- 1-65	--	7.8	515	71 3.54 67	15 1.23 23	11 0.48 9	2 0.05 1	0	183 3.00 57	32 0.67 13	14 0.39 7	75 1.21 23	0.3	0.06	--	355 310 239		
7-15-65	--	7.7	514	--	--	--	--	--	--	30 0.62	--	--	--	--	--	370		
8- 6-65	--	7.7	517	69 3.44 64	16 1.32 25	13 0.57 11	2 0.05 1	0	190 3.11 57	31 0.65 12	14 0.39 7	81 1.31 24	0.5	0.02	--	346 320 238		
8-12-65	--	7.6	524	--	--	--	--	--	--	30 0.62	--	--	--	--	--	347		
8-26-65	--	7.7	533	--	--	--	--	--	--	34 0.71	--	--	--	--	--	375		
9-30-65	--	8.0	547	--	--	--	--	--	--	31 0.65	--	--	--	--	--	387		



TABLE E-1

ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fuo- ride F	Boron B	Sol- ca SO <sub>2</sub>	Total hardness at 105°C Computed CaCO <sub>3</sub>	
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0																	
CHINO HYDRO SUBAREA Y01B1																	
1S/ 8W-25B 1 S 6-10-65	--	7.9	443	62 3.09 66	12 0.99 21	12 0.52 11	2 0.05 1	0	195 3.20 69	15 0.31 7	12 0.34 7	47 0.76 16	0.3	0.04	--	275 258 258	204
6-24-65	--	7.8	437	--	--	--	--	--	--	14 0.29	--	--	--	--	--	--	--
7- 1-65	--	7.7	436	60 2.99 64	14 1.15 25	11 0.48 10	2 0.05 1	0	193 3.16 69	18 0.37 8	11 0.31 7	48 0.77 17	0.3	0.02	--	281 259 202	207
8- 6-65	--	7.7	437	58 2.89 63	14 1.15 25	12 0.52 11	2 0.05 1	0	198 3.25 69	16 0.33 7	11 0.31 7	49 0.79 17	0.4	0.04	--	275 260 147	202
1S/ 8W-25Q 1 S 10- 7-64	--	7.8	344	44 2.20 56	9 0.74 19	21 0.91 23	2 0.05 1	0	200 3.28 85	9 0.19 5	5 0.14 4	15 0.24 6	0.2	0.02	--	200 204 145	147
10-22-64	--	7.7	343	43 2.15 56	9 0.74 19	21 0.91 24	2 0.05 1	0	190 3.11 84	8 0.17 5	6 0.17 5	17 0.27 7	0.3	0.03	--	204 200 122	145
10-29-64	--	7.7	346	37 1.85 49	7 0.58 15	30 1.30 34	2 0.05 1	0	186 3.05 82	9 0.19 5	6 0.17 5	18 0.29 8	0.2	0.03	--	219 201 145	122
11- 5-64	--	7.8	357	43 2.15 55	9 0.74 19	22 0.96 25	2 0.05 1	0	192 3.15 84	8 0.17 5	6 0.17 5	17 0.27 7	0.2	0.01	--	220 202 145	145

TABLE E-1

ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent reactance value					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Flu- oride F	Boron B	Sili- ca SiO <sub>2</sub>	TDS Evap (BOC) hardness Expos (BOC) Calc-3		
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0 CHINO HYDRO SUBAREA Y01B1																		
15/ 8W-25Q 1 S 11-12-64	--	7.7	272	38 1.90 48	12 0.99 25	23 1.00 25	2 0.05 1	0	192 3.15 79	18 0.37 9	8 0.23 6	16 0.26 6	0.2	0.01	--	--	243 212	145
11-19-64	--	7.8	432	45 2.25 50	10 0.82 18	32 1.39 31	2 0.05 1	0	181 2.97 67	39 0.81 18	16 0.45 10	12 0.19 4	0.4	0.02	--	--	269 245	154
12-10-64	--	7.6	342	38 1.90 51	8 0.66 18	25 1.09 29	2 0.05 1	0	186 3.05 83	9 0.19 5	6 0.17 5	16.5 0.27 7	0.3	0.03	--	--	218 196	128
12-17-64	--	7.9	355	39 1.95 53	9 0.74 20	22 0.96 26	2 0.05 1	0	192 3.15 82	9 0.19 5	9 0.25 6	16 0.26 7	0.3	0.02	--	--	219 201	135
12-23-64	--	7.9	352	39 1.95 53	8 0.66 18	24 1.04 28	2 0.05 1	0	186 3.05 84	7 0.15 4	6 0.17 5	15 0.24 7	0.3	0.02	--	--	177 193	131
12-30-64	--	7.9	356	41 2.05 55	8 0.66 18	22 0.96 26	2 0.05 1	0	192 3.15 83	10 0.21 6	6 0.17 4	17 0.27 7	0.3	0	--	--	222 201	136
1-14-65	--	7.8	346	42 2.10 56	8 0.66 18	22 0.96 25	2 0.05 1	0	189 3.10 82	11 0.23 6	6 0.17 4	17.5 0.28 7	0.3	0.02	--	--	214 202	136
1-21-65	--	7.6	337	41 2.05 54	9 0.74 19	22 0.96 25	2 0.05 1	0	192 3.15 83	9 0.19 5	6 0.17 4	17.0 0.27 7	0.2	0.02	--	--	221 201	140

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per percent reactance value			Mineral constituents in parts per million						
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluor- ide F	Boron B	Sili- co SiO <sub>2</sub>	I.D.S. Evap 180°C Evap 105°C as Computed Calc.		
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0 CHINO HYDRO SUBAREA Y01B1																		
1S/ 8W-25Q 1 S 1-28-65	--	7.7	357	42 2.10 56	8 0.66 18	22 0.96 25	2 0.05 1	0	189 3.10 83	9 0.19 5	7 0.20 5	15 0.24 6	0.3	0.01	--	198 138		
2- 4-65	--	7.9	363	43 2.15 57	7 0.58 16	22 0.96 26	2 0.05 1	0	192 3.15 84	9 0.19 5	6 0.17 5	16 0.26 7	0.3	0.03	--	240 137		
2-11-65	--	7.8	361	43 2.15 56	8 0.66 17	22 0.96 25	2 0.05 1	0	196 3.21 84	9 0.20 5	6 0.17 4	16 0.26 7	0.2	0.02	--	226 203 141		
2-26-65	--	7.6	358	43 2.15 56	8 0.66 17	22 0.96 25	2 0.05 1	0	192 3.15 80	18 0.37 9	7 0.20 5	14 0.23 6	0.3	0.02	--	328 209 141		
3- 4-65	--	7.8	359	40 2.00 53	10 0.82 22	21 0.91 24	2 0.05 1	0	190 3.11 82	11 0.23 6	6 0.17 5	16 0.26 7	0.4	0.07	--	217 200 141		
3-11-65	--	7.7	357	43 2.15 56	8 0.66 17	22 0.96 25	2 0.05 1	0	190 3.11 82	10 0.21 6	6 0.17 5	17.5 0.28 7	0.4	0.01	--	228 202 141		
3-18-65	--	7.8	355	43 2.15 56	8 0.66 17	22 0.96 25	2 0.05 1	0	190 3.11 82	9 0.19 5	7 0.20 5	17 0.27 7	0.3	0.02	--	202 202 141		
3-25-65	--	7.7	358	--	--	--	--	--	--	9 0.19	--	--	--	--	--	214		

ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million reactance value					Mineral constituents in parts per million				
				Calcium mg	Magnesium mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	TDSS Evap 105°C Evap 105°C Computed CaCO <sub>3</sub>		
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0																		
CHINO HYDRO SUBAREA Y01B1																		
SANTA ANA RIVER HYDRO UNIT Y0100																		
15/ 8W-25Q 1 S 4- 2-65	--	7.7	359	--	--	--	--	--	--	--	--	7 0.15	--	--	--	--	184	
4-16-65	--	7.8	359	--	--	--	--	--	--	--	--	10 0.21	--	--	--	--	222	
4-23-65	--	7.7	358	--	--	--	--	--	--	--	--	7 0.15	--	--	--	--	236	
4-29-65	--	7.8	359	--	--	--	--	--	--	--	--	8 0.17	--	--	--	--	185	
5- 6-65	--	7.7	356	--	--	--	--	--	--	--	--	10 0.21	--	--	--	--	205	
5-13-65	--	7.4	358	--	--	--	--	--	--	--	--	10 0.21	--	--	--	--	216	
5-21-65	--	7.7	360	--	--	--	--	--	--	--	--	8 0.17	--	--	--	--	198	
5-27-65	--	8.0	358	--	--	--	--	--	--	--	--	17 0.35	--	--	--	--	203	

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per percent				Mineral constituents in parts per million					
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	TDS Evap 100°C as CaCO <sub>3</sub> Computed		
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0																		
CHINO HYDRO SUBAREA Y01B1																		
SANTA ANA RIVER HYDRO UNIT Y0100																		
15/ 8W-25Q 1 S 6- 3-65	--	7.9	356	--	--	--	--	--	--	--	6 0.12	--	--	--	--	--	216	
6-10-65	--	7.4	354	--	--	--	--	--	--	--	8 0.17	--	--	--	--	--	199	
6-17-65	--	8.1	351	--	--	--	--	--	--	--	11 0.23	--	--	--	--	--	227	
6-24-65	--	7.8	354	--	--	--	--	--	--	--	8 0.17	--	--	--	--	--	213	
7- 1-65	--	7.8	353	42 2.10 55	9 0.74 19	22 0.96 25	2 0.05 1	0	193 3.16 84	10 0.21 6	8 0.23 6	11.3 0.18 5	0.3	0.02	--	208 199 214	142	
7- 8-65	--	7.6	340	--	--	--	--	--	--	9 0.19	--	--	--	--	--	--	225	
7-15-65	--	7.6	347	--	--	--	--	--	--	10 0.21	--	--	--	--	--	--	224	
7-22-65	--	7.8	356	--	--	--	--	--	--	10 0.21	--	--	--	--	--	--	224	



ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million					Mineral constituents in parts per million								
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fuo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	IO <sub>3</sub> - Exp 180°C Exp 105°C Computed	Total hardness as CaCO <sub>3</sub>
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0																	
CHINO HYDRO SUBAREA Y01B1																	
SANTA ANA RIVER HYDRO UNIT Y0100																	
1S/ 8W-25Q 1 S 7-29-65	--	7.8	355	--	--	--	--	--	--	11 0.23	--	--	--	--	--	218	--
8- 6-65	--	7.6	356	41 2.05 54	10 0.82 21	21 0.91 24	2 0.05 1	0	195 3.20 83	10 0.21 5	6 0.17 4	18 0.29 7	0.4	0.03	--	234 204	144
8-12-65	--	7.8	357	--	--	--	--	--	--	10 0.21	--	--	--	--	--	217	--
8-19-65	--	7.8	353	--	--	--	--	--	--	10 0.21	--	--	--	--	--	225	--
8-26-65	--	7.9	353	--	--	--	--	--	--	10 0.21	--	--	--	--	--	224	--
9- 2-65	--	8.0	354	43 2.15 56	9 0.74 19	21 0.91 24	2 0.05 1	0	193 3.16 83	9 0.19 5	7 0.20 5	17 0.27 7	0.3	0.02	--	196 203	145
9-10-65	--	8.2	342	--	--	--	--	--	--	9 0.19	--	--	--	--	--	200	--
9-13-65	--	8.1	354	--	--	--	--	--	--	9 0.19	--	--	--	--	--	204	--

TABLE E-1

ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				Mineral constituents in parts per million				
				Calcium	Magne-sium	Sodium	Potas-sium	Carbon-ate	Bicar-bonate	Sulfate	Chlo-ride	Ni-trate	Fluo-ride	Boron	Sili-co	Total Hardness as CaCO <sub>3</sub>
Date sampled				Co	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>	Evap. 105°C as computed
SANTA ANA RIVER HYDRO UNIT																
YO100																
MIDDLE SANTA ANA R HYDRO SUBUNIT																
YO1B1																
CHINO HYDRO SUBAREA																
1S/ 8W-25Q 1 S 9-23-65	--	7.8	353	--	--	--	--	--	--	11 0.23	--	--	--	--	--	201
9-30-65	--	7.8	355	--	--	--	--	--	--	5 0.10	--	--	--	--	--	211
1S/ 8W-26B 1 S 10- 7-64	--	7.7	471	71 3.54	13 1.07	11 0.48	2 0.05	0	187 3.06	28 0.58	12 0.34	62 1.00	0.2	0.02	--	231
10-15-64	--	7.7	482	71 3.54	13 1.07	10 0.43	2 0.05	0	184 3.02	31 0.65	12 0.34	64 1.03	0.4	0.01	--	231
10-22-64	--	7.6	468	71 3.54	12 0.99	10 0.43	2 0.05	0	184 3.02	26 0.54	12 0.34	66 1.06	0.2	0.02	--	227
10-29-64	--	7.8	492	71 3.54	13 1.07	11 0.48	2 0.05	0	189 3.10	27 0.56	12 0.34	62 1.00	0.3	0.02	--	231
11- 2-64	--	7.6	490	69 3.44	13 1.07	11 0.48	2 0.05	0	186 3.05	26 0.54	12 0.34	64 1.03	0.3	0.02	--	226
11-12-64	--	7.6	490	69 3.44	12 0.99	11 0.48	2 0.05	0	189 3.10	27 0.56	13 0.37	64 1.03	0.3	0.01	--	222
																323 291

**ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)**

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million								
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	Total hardness as CaCO <sub>3</sub>		
MIDDLE SANTA ANA R HYDRO SUBUNIT YO1B0 CHINO HYDRO SUBAREA YO1B1																		
15/ 8W-26B 1 S 12- 7-64	--	7.8	478	67 3.34 68	13 1.07 22	11 0.48 10	2 0.05 1	0	189 3.10 62	28 0.58 12	12 0.34 7	61 0.98 20	0.3	0.03	--	298 287	221	
12-10-64	--	7.7	474	66 3.29 66	14 1.15 23	11 0.48 10	2 0.05 1	0	186 2.05 61	27 0.56 11	13 0.37 7	64 1.03 21	0.3	0.02	--	319 289	222	
12-17-64	--	7.8	487	66 3.29 66	14 1.15 23	11 0.48 10	2 0.05 1	0	186 3.05 61	28 0.58 12	15 0.42 8	61 0.98 19	0.3	0.01	--	323 289	222	
12-23-64	--	7.7	489	67 3.34 67	14 1.15 23	11 0.48 10	2 0.05 1	0	184 3.02 62	26 0.54 11	12 0.34 7	62 1.00 20	0.3	0.02	--	270 285	225	
12-30-64	--	7.8	474	73 3.64 72	10 0.82 16	12 0.52 10	2 0.05 1	0	189 3.10 61	29 0.60 12	12 0.34 7	64 1.03 20	0.4	0.03	--	312 295	223	
1- 7-65	--	8.0	485	71 3.54 71	11 0.90 18	11 0.48 10	2 0.05 1	2	181 2.97 59	30 0.62 12	12 0.34 7	64 1.03 20	0.4	0.02	--	306 292	222	
1-14-65	--	7.7	488	68 3.39 69	13 1.07 22	10 0.43 9	2 0.05 1	0	186 3.05 61	28 0.58 12	13 0.37 7	63.8 1.03 20	0.3	0.01	--	294 290	223	
1-21-65	--	7.6	490	55 2.74 55	21 1.73 35	10 0.43 9	2 0.05 1	0	189 3.10 62	27 0.56 11	12 0.34 7	64 1.03 20	0.3	0.01	--	323 284	224	

TABLE E-1

ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million							
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fuo- ride F	Boron B	Sili- co SiO <sub>2</sub>	TDS Evap. Residue at 180°C Computed CaCO <sub>3</sub>	Total Hardness as CaCO <sub>3</sub>
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0																	
CHINO HYDRO SUBAREA Y01B1																	
1S/ 8W-268 1 S 1-28-65	--	7.6	491	70 3.49 70	12 0.99 20	10 0.43 9	2 0.05 1	0 186 3.05 62	27 0.56 11	11 0.31 6	62 1.00 20	0.3	0.02	--	296 286	224	
2- 4-65	--	7.8	491	71 3.54 71	11 0.90 18	11 0.48 10	2 0.05 1	0 186 3.05 61	28 0.58 12	13 0.37 7	62 1.00 20	0.4	0.03	--	314 290	222	
2-11-65	--	7.8	495	71 3.54 71	12 0.99 20	10 0.43 9	2 0.05 1	0 194 3.18 63	25 0.52 10	11 0.31 6	62 1.00 20	0.3	0.02	--	306 289	227	
2-18-65	--	7.5	489	71 3.54 71	11 0.90 18	11 0.48 10	2 0.05 1	0 181 2.97 61	26 0.54 11	12 0.34 7	63 1.02 21	0.3	0	--	342 285	222	
3- 4-65	--	7.8	492	70 3.49 70	12 0.99 20	10 0.43 9	2 0.05 1	0 186 3.05 61	28 0.58 12	12 0.34 7	63 1.02 20	0.4	0.04	--	305 289	224	
3-11-65	--	7.8	489	71 3.54 71	11 0.90 18	11 0.48 10	2 0.05 1	0 186 3.05 60	29 0.60 12	13 0.37 7	68 1.10 21	0.4	0.01	--	327 297	222	
5-13-65	--	7.4	511	--	--	--	--	--	31 0.65	--	--	--	--	--	356		
5-21-65	--	7.9	505	--	--	--	--	--	30 0.62	--	--	--	--	--	316		

ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					Mineral constituents in parts per million					Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	I.O.S. Expt. 180°C Evap. 105°C Computed	Total Hardness as CaCO <sub>3</sub>	
Date sampled																		
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0																		
CHINO HYDRO SUBAREA Y01B1																		
SANTA ANA RIVER HYDRO UNIT Y0100																		
15/ 8W-26B 1 S 5-27-65	--	8.0	503	--	--	--	--	--	--	28 0.58	--	--	--	--	--	316		
6- 3-65	--	7.9	504	--	--	--	--	--	--	27 0.56	--	--	--	--	--	323		
6-17-65	--	8.0	492	--	--	--	--	--	--	29 0.60	--	--	--	--	--	312		
6-24-65	--	7.8	493	--	--	--	--	--	--	29 0.60	--	--	--	--	--	305		
7- 1-65	--	7.6	493	73 3.64 71	12 0.99 19	10 0.43 8	2 0.05 1	0	188 3.08 61	29 0.60 12	14 0.39 8	61 0.98 19	0.5	0.02	--	308 232		
7- 8-65	--	7.6	490	--	--	--	--	--	--	29 0.60	--	--	--	--	--	348		
7-15-65	--	7.6	488	--	--	--	--	--	--	28 0.58	--	--	--	--	--	321		
7-22-65	--	7.8	489	--	--	--	--	--	--	31 0.65	--	--	--	--	--	308		



TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million reactance value					Mineral constituents in parts per million				
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlor- ide Cl	Nit- rate NO <sub>3</sub>	Fluor- ide F	Berke- ly Be	Sili- ca SiO <sub>2</sub>	TDS Evap. Res- idue (GSC) Compu- te	Total Hardness as CaCO <sub>3</sub>	
MIDDLE SANTA ANA R HYDRO SUBUNIT Y0180																		
CHINO HYDRO SUBAREA Y0181																		
1S/ 8W-26B 1 S 8- 6-65	--	7.7	464	69 3.44 67	14 1.15 22	11 0.48 9	2 0.05 1	--	186 3.05 60	30 0.62 12	13 0.37 7	66 1.06 21	0.4	0.05	--	329	230	
8-12-65	--	7.8	474	--	--	--	--	--	--	31 0.65	--	--	--	--	--	317		
8-19-65	--	7.9	480	--	--	--	--	--	--	29 0.60	--	--	--	--	--	328		
8-26-65	--	7.9	486	--	--	--	--	--	--	31 0.65	--	--	--	--	--	323		
9- 2-65	--	8.0	487	70 3.49 69	13 1.07 21	11 0.48 9	2 0.05 1	0	188 3.08 62	26 0.54 11	12 0.34 7	64 1.03 21	0.4	0.03	--	307	228	
9-16-65	--	7.8	486	--	--	--	--	--	--	29 0.60	--	--	--	--	--	314		
1S/ 8W-27K 1 S 10- 7-64	--	7.6	506	75 3.74 70	14 1.15 21	10 0.43 8	2 0.05 1	0	197 3.23 62	25 0.52 10	14 0.39 7	69 1.11 21	0.3	0.02	--	258 306	245	
10-22-64	--	7.5	484	79 3.94 73	13 1.07 20	9 0.39 7	1 0.03 1	0	197 3.23 62	26 0.54 10	14 0.39 7	66 1.06 20	0.4	0.02	--	291 305	251	

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million reactance value				Mineral constituents in parts per million					
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	Hardness as CaCO <sub>3</sub>	
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0																	
CHINO HYDRO SUBAREA Y01B1																	
SANTA ANA RIVER HYDRO UNIT Y0100																	
1S/ 8W-27K 1 S 10-29-64	--	7.9	493	71 3.54 68	15 1.23 24	9 0.39 7	2 0.05 1	0	199 3.26 64	24 0.50 10	12 0.34 7	62 1.00 20	0.2	0.03	--	239 325 293	
1-28-65	--	7.6	450	66 3.29 72	10 0.82 18	9 0.39 9	2 0.05 1	0	189 3.10 69	19 0.40 9	10 0.28 6	45 0.73 16	0.5	0.01	--	270 254 206	
2-26-65	--	7.5	491	71 3.54 71	12 0.99 20	9 0.39 8	2 0.05 1	0	196 3.21 64	23 0.48 10	14 0.39 8	58 0.94 19	0.4	0.11	--	392 286 310	
4-29-65	--	7.7	470	--	--	--	--	--	--	20 0.42	--	--	--	--	--	328	
5-27-65	--	7.8	486	--	--	--	--	--	--	25 0.52	--	--	--	--	--	293	
6-10-65	--	7.5	482	--	--	--	--	--	--	22 0.46	--	--	--	--	--	309	
6-17-65	--	7.9	483	--	--	--	--	--	--	26 0.54	--	--	--	--	--	307	
7- 8-65	--	7.7	474	--	--	--	--	--	--	23 0.48	--	--	--	--	--	307	

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per percent				Mineral constituents in parts per million					
				Calcium mg	Magnesium mg	Sodium No	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	Iron Fe	Total Hardness as CaCO <sub>3</sub>	
Date sampled				Co	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>	Fe	Computed CaCO <sub>3</sub>	
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0																		
CHINO HYDRO SUBAREA																		
Y01B1																		
SANTA ANA RIVER HYDRO UNIT																		
Y0100																		
1S/ 8W-27K 1 S 7-15-65	--	7.7	474	--	--	--	--	--	--	24 0.50	--	--	--	--	--	--	312	
7-29-65	--	7.7	481	--	--	--	--	--	--	27 0.56	--	--	--	--	--	--	319	
8- 6-65	--	7.4	470	68 3.39	15 1.23	11 0.48	2 0.05	0	198 3.25	23 0.48	12 0.34	58 0.94	0.5	0.02	--	--	316 287	231
8-19-65	--	7.8	465	66	24	9	1	--	65	10	7	19	--	--	--	--	308	
8-26-65	--	7.8	472	--	--	--	--	--	--	23 0.48	--	--	--	--	--	--	317	
9-16-65	--	8.0	472	--	--	--	--	--	--	23 0.48	--	--	--	--	--	--	294	
1S/ 8W-28E 2 S 7-22-65	--	7.6	473	65 3.24	13 1.07	11 0.48	2 0.05	0	173 2.84	38 0.79	11 0.31	60 0.97	0.4	0.01	--	--	310 285	216
7-29-65	--	7.8	394	67	22	10	1	--	58	16	6	20	--	--	--	--	258	

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million reactance value				Mineral constituents in parts per million					
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	Total Hardness as CaCO <sub>3</sub>	
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0																	
CHINO HYDRO SUBAREA Y01B1																	
SANTA ANA RIVER HYDRO UNIT Y0100																	
15/ 8W-28E 2 S 8- 6-65	--	7.6	393	53 2.64 62	12 0.99 23	14 0.61 14	2 0.05 1	0	178 2.92 67	26 0.54 12	14 0.39 9	31 0.50 11	0.2	0.02	--	243 240	182
8-12-65	--	7.8	389	--	--	--	--	--	--	25 0.52	--	--	--	--	--	264	
8-19-65	--	7.8	393	--	--	--	--	--	--	25 0.52	--	--	--	--	--	276	
8-26-65	--	7.8	385	--	--	--	--	--	--	25 0.52	--	--	--	--	--	280	
9- 2-65	--	8.0	382	53 2.64 64	10 0.82 20	14 0.61 15	2 0.05 1	0	183 3.00 74	21 0.44 11	7 0.20 5	27 0.44 11	0.4	0.02	--	230 224	173
9-10-65	--	8.2	378	--	--	--	--	--	--	24 0.50	--	--	--	--	--	237	
9-16-65	--	8.0	386	--	--	--	--	--	--	25 0.52	--	--	--	--	--	240	
9-23-65	--	7.8	400	--	--	--	--	--	--	28 0.58	--	--	--	--	--	224	

**TABLE E-1**  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent reactance value				Mineral constituents in parts per million					
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	Total hardness as CaCO <sub>3</sub>	
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0																	
CHINO HYDRO SUBAREA Y01B1																	
SANTA ANA RIVER HYDRO UNIT Y0100																	
1S/ 8W-28G 1 S 11-13-64	--	7.7	429	57 2.84 64	14 1.15 26	10 0.43 10	2 0.05 1	0 3.15 72	192 3.15 72	21 0.44 10	9 0.25 6	35 0.56 13	0.3	0.02	--	257 243	200
12- 7-64	--	7.6	439	61 3.04 67	12 0.99 22	10 0.43 10	2 0.05 1	0 3.15 69	192 3.15 69	24 0.50 11	10 0.28 6	40 0.65 14	0.3	0.03	--	277 254	202
12-10-64	--	7.8	480	64 3.19 66	14 1.15 24	10 0.43 9	2 0.05 1	0 3.18 65	194 3.18 65	27 0.56 11	12 0.34 7	51.0 0.82 17	0.4	0.03	--	313 276	217
12-17-64	--	7.7	482	64 3.19 64	16 1.32 26	10 0.43 9	2 0.05 1	0 3.18 64	194 3.18 64	27 0.56 11	14 0.39 8	52 0.84 17	0.4	0.01	--	304 281	226
12-30-64	--	7.8	414	64 3.19 70	11 0.90 20	10 0.43 9	2 0.05 1	0 3.15 68	192 3.15 68	26 0.54 12	10 0.28 6	43 0.69 15	0.4	0.01	--	282 261	205
1-14-65	--	7.8	482	69 3.44 70	12 0.99 20	10 0.43 9	2 0.05 1	0 3.18 64	194 3.18 64	29 0.60 12	12 0.34 7	54 0.87 17	0.5	0.02	--	297 284	222
1-21-65	--	7.6	484	69 3.44 69	13 1.07 22	9 0.39 8	2 0.05 1	0 3.26 65	199 3.26 65	26 0.54 11	13 0.37 7	54 0.87 17	0.4	0.02	--	312 284	226
1-28-65	--	7.5	485	70 3.49 69	13 1.07 21	10 0.43 9	2 0.05 1	0 3.18 65	194 3.18 65	25 0.52 11	13 0.37 8	52 0.84 17	0.5	0.03	--	265 281	228



TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million reactance value				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fus- sile F	Borax B <sub>2</sub> O <sub>3</sub>	Evap- 180°C S <sub>2</sub> O <sub>3</sub>	Evap- 105°C S <sub>2</sub> O <sub>3</sub>	Evap- 105°C S <sub>2</sub> O <sub>3</sub>
MIDDLE SANTA ANA R HYDRO SUBUNIT Y0100																	
CHINO HYDRO SUBAREA Y0101																	
15/ 8W-28G 1 1/2 2- 4-65	--	7.1	484	70 3.49	11 0.90	10 0.43	0.05	2 1	0	199 3.66	26 0.54	11 0.31	0.4	0.03	--	325 279	220
2-11-65	--	7.1	472	69 3.44	11 0.90	10 0.43	0.05	2 1	0	202 3.61	27 0.56	10 0.28	0.3	0.02	--	293 277	217
2-16-65	--	7.5	480	69 3.44	12 0.99	10 0.43	0.05	2 1	0	204 3.64	24 0.50	13 0.37	0.3	0.05	--	355 280	222
3- 4-65	--	7.7	482	68 3.39	13 1.07	9 0.39	0.05	2 1	0	203 3.63	27 0.56	11 0.31	0.5	0.03	--	303 282	223
3-11-65	--	7.7	476	68 3.39	12 0.99	10 0.43	0.05	2 1	0	195 3.20	26 0.54	12 0.34	0.4	0	--	314 280	219
4-12-65	--	7.7	476	69 3.44	13 1.07	10 0.43	0.05	2 1	0	193 3.16	26 0.54	12 0.34	0.3	0.02	--	295 279	226
4-25-65	--	7.6	481	--	--	--	--	--	--	--	27 0.56	--	--	--	--	297	--
4- 5-65	--	7.6	479	--	--	--	--	--	--	--	25 0.52	--	--	--	--	280	--

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent			Mineral constituents in parts per million				Total Hardness as CaCO <sub>3</sub>		
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boric B		Soluble S <sub>2</sub> O <sub>3</sub>	I.D.S. Extr. Res. Extr. Res. Extr. Res.
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B1																	
CHINO HYDRO SUBAREA																	
157 8W-28G 15 4-16-65	--	7.1	482	--	--	--	--	--	--	--	27 0.56	--	--	--	--	327	
4-23-65	--	7.6	482	--	--	--	--	--	--	--	24 0.50	--	--	--	--	320	
4-29-65	--	7.7	485	--	--	--	--	--	--	--	25 0.52	--	--	--	--	321	
5- 6-65	--	7.6	474	--	--	--	--	--	--	--	29 0.60	--	--	--	--	295	
5-13-65	--	7.1	474	--	--	--	--	--	--	--	26 0.54	--	--	--	--	292	
5-21-65	--	7.6	475	--	--	--	--	--	--	--	26 0.54	--	--	--	--	275	
5-27-65	--	8.1	476	--	--	--	--	--	--	--	25 0.52	--	--	--	--	392	
6- 3-65	--	7.7	478	--	--	--	--	--	--	--	22 0.46	--	--	--	--	294	

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent		million reactance value		Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	Total Hardness as CaCO <sub>3</sub>
MIDDLE SANTA ANA R HYDRO SUBUNIT YO1B0																
CHINO HYDRO SUBAREA YO1B1																
SANTA ANA RIVER HYDRO UNIT YO100																
1S/ 8W-28G 1 S 6-10-65	--	7.7	471	--	--	--	--	--	--	28 0.58	--	--	--	--	--	292
6-17-65	--	8.0	433	--	--	--	--	--	--	25 0.52	--	--	--	--	--	290
7- 1-65	--	7.5	474	68 3.39 68	14 1.15 23	9 0.39 8	2 0.05 1	0	198 3.25 66	27 0.56 11	12 0.34 7	48 0.77 16	0.4	0.02	--	285 278
7- 8-65	--	7.7	461	--	--	--	--	--	--	27 0.56	--	--	--	--	--	303
7-15-65	--	7.6	463	--	--	--	--	--	--	27 0.56	--	--	--	--	--	318
7-29-65	--	7.7	464	--	--	--	--	--	--	27 0.56	--	--	--	--	--	308
9- 2-65	--	8.1	467	68 3.39 68	14 1.15 23	10 0.43 9	2 0.05 1	0	198 3.25 66	27 0.56 11	12 0.34 7	50 0.81 16	0.4	0.02	--	275 281
9-16-65	--	7.9	456	--	--	--	--	--	--	25 0.52	--	--	--	--	--	277

**TABLE E-1**  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent reactance value				Mineral constituents in parts per million					
				Calcium Co	Magne-sium Mg	Sodium Na	Potas-sium K	Carbon-ate CO <sub>3</sub>	Bicar-bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo-ride Cl	Ni-tro NO <sub>3</sub>	Fuo-ride F	Boron B	Sili-ca SiO <sub>2</sub>	Total Hardness as CaCO <sub>3</sub>	
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0																	
CHINO HYDRO SUBAREA Y01B1																	
SANTA ANA RIVER HYDRO UNIT Y0100																	
1S/ 8W-28G 1 S 9-23-65	--	7.7	456	--	--	--	--	--	--	27 0.56	--	--	--	--	--	280	
1S/ 8W-35C 2 S 6-30-65	--	8.0	402	59 2.94 67	12 0.99 23	10 0.43 10	1 0.03 1	0	190 3.11 72	19 0.40 9	9 0.25 6	33 0.53 12	0.4	0.01	--	235 197	
2S/ 5W-7N 1 S 2-17-65	--	7.2	1888	176 8.78 43	70 5.76 28	137 5.96 29	3 0.08	0	342 5.61 27	267 5.56 27	153 4.31 21	307 4.95 24	0.6	0.02	--	1360 1282	728
8-17-65	--	7.4	1840	170 8.48 42	68 5.59 28	134 5.83 29	3 0.08	0	348 5.70 29	242 5.04 26	152 4.29 22	290 4.68 24	0.7	0.08	--	1417 1231	704
2S/ 6W-5A 1 S 2-17-65	--	8.0	319	42 2.10 63	5 0.41 12	18 0.78 23	2 0.05 1	0	168 2.75 83	12 0.25 8	8 0.23 7	6 0.10 3	0.2	0	--	184 176	126
8-16-65	--	8.2	313	44 2.20 64	5 0.41 12	18 0.78 23	2 0.05 1	5	164 2.69 79	9 0.19 6	9 0.25 7	6.3 0.10 3	0.4	0	--	184 179	131
2S/ 6W-12M 1 S 2-17-65	--	7.7	946	76 3.79 38	39 3.21 32	68 2.96 30	1 0.03	0	336 5.51 55	82 1.71 17	84 2.37 24	29 0.47 5	0.5	0.79	--	584 545	350
8-16-65	--	7.6	958	77 3.84 37	42 3.45 34	68 2.96 29	1 0.03	0	351 5.75 56	83 1.73 17	84 2.37 23	27 0.44 4	0.6	0.11	--	657 555	365

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million					
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica
Date sampled				Ca	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>
MIDDLE SANTA ANA R HYDRO SUBUNIT YO1B0															
CHINO HYDRO SUBAREA															
2S/ 6W-14K 1 S	--	7.2	1264	98	46	110	2	0	393	131	119	47	1.0	0.02	--
2-17-65				4.89	3.78	4.78	0.05		6.44	2.73	3.36	0.76			817
				36	28	35			48	21	25	6			747
8-16-65	--	7.4	1236	94	51	105	2	0	388	131	120	52	0.9	0.06	--
				4.69	4.19	4.57	0.05		6.36	2.73	3.38	0.84			866
				35	31	34			48	21	25	6			747
2S/ 6W-21Q 1 S	--	7.5	1116	123	11	101	4	0	305	110	143	11	0.2	0.25	--
2-17-65				6.14	0.90	4.39	0.10		5.00	2.29	4.03	0.18			701
				53	8	38	1		43	20	35	2			653
8-16-65	--	7.6	1124	118	17	95	4	0	320	115	138	11.4	0.3	0.24	--
				5.89	1.40	4.13	0.10		5.24	2.39	3.89	0.18			736
				51	12	36	1		45	20	33	2			656
2S/ 6W-30Q 1 S	--	7.5	749	105	15	33	3	0	273	71	54	27	0.3	0.02	--
8-16-65				5.24	1.23	1.43	0.08		4.47	1.48	1.52	0.44			513
				66	15	18	1		57	19	19	6			443
2S/ 6W-31D 2 S	--	7.8	949	119	24	54	3	0	361	95	60	31	0.3	0.02	--
8-16-65				5.94	1.97	2.35	0.08		5.92	1.98	1.69	0.50			663
				57	19	23	1		59	20	17	5			564
2S/ 7W- 2G 1 S	--	7.9	434	50	12	23	1	0	220	7	19	14	0.3	0	--
3-11-65				2.50	0.99	1.00	0.03		3.61	0.15	0.54	0.23			260
				55	22	22	1		80	3	12	5			234
2S/ 7W- 2Q 1 S	--	7.8	553	60	19	24	2	0	227	12	37	35	0.2	0	--
3-11-65				2.99	1.56	1.04	0.05		3.72	0.25	1.04	0.56			330
				53	28	18	1		67	4	19	10			301



TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reactance value				Mineral constituents in parts per million				
				Calcium Mg	Magne- sium	Sodium Na	Potas- sium	Carbon- ate	Bicar- bonate	Sulfate	Chlo- ride	Ni- trate	Fluo- ride	Bor- on	Sili- co	Total Hard- ness
Date sampled				Co	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>	CaCO <sub>3</sub>
MIDDLE SANTA ANA R HYDRO SUBUNIT Y0100 CHINO HYDRO SUBAREA Y01B1																
2S/ 7W- 4B 1 S 2-18-65	--	6.8	357	40 2.00	12 0.99	17 0.74	2 0.05	0	186 3.05	16 0.33	4 0.11	6.8 0.11	0.3	0.01	--	275 190
8-17-65	--	7.6	354	42 2.10	11 0.90	18 0.78	2 0.05	0	188 3.08	17 0.35	10 0.28	9.3 0.15	0.3	0.02	--	208 150
2S/ 7W- 4E 2 S 3- 8-65	--	7.7	418	39 1.95	13 1.07	18 0.78	2 0.05	0	186 3.05	18 0.37	13 0.37	8 0.13	0.3	0.04	--	241 151
2S/ 7W- 6J 1 S 2-18-65	--	7.6	447	57 2.84	12 0.99	16 0.70	2 0.05	0	209 3.43	9 0.19	18 0.51	15 0.24	0.3	0.01	--	363 192
8-17-65	--	7.7	512	65 3.24	16 1.32	18 0.78	2 0.05	0	209 3.43	26 0.54	17 0.48	55 0.89	0.4	0	--	232 318
2S/ 7W-10C 1 S 3- 8-65	--	7.4	967	105 5.24	26 2.14	59 2.57	2 0.05	0	312 5.11	72 1.50	81 2.28	60 0.97	0.3	1.35	--	302 638
2S/ 7W-10H 1 S 3- 9-65	--	7.9	1002	133 6.64	34 2.80	31 1.35	2 0.05	0	317 5.20	63 1.31	81 2.28	128 2.06	0.3	0.04	--	560 650
2S/ 7W-10L 4 S 3- 8-65	--	7.8	1060	135 6.74	38 3.13	36 1.57	2 0.05	0	342 5.61	75 1.56	104 2.93	85 1.37	0.4	0.42	--	690 644

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million				Mineral constituents in parts per million			
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Sulfide S <sup>2-</sup>	Iron Fe	Total Dissolved Solids TDS
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0															
CHINO HYDRO SUBAREA Y01B1															
25/ 7W-10M 1 S 2-18-65	--	7.7	723	82 4.09	28 2.30	23 1.00	2 0.05	0	237 3.88	31 0.65	55 1.55	75 1.21	0.4	0.4	448
8-16-65	--	8.1	747	90 4.49	29 2.38	23 1.00	2 0.05	0	251 4.11	33 0.69	56 1.64	75 1.21	0	0.4	482
25/ 7W-11B 1 S 2-18-65	--	7.5	847	108 5.39	26 2.14	29 1.26	2 0.05	0	268 4.39	63 1.31	58 1.64	83 1.34	0.07	0.3	582
8-16-65	--	7.7	812	61 5.19	24 2.22	14 1.22	1 0.05	0	51 4.23	15 0.60	19 1.60	15 1.29	0.07	0.4	501
25/ 7W-15K 1 S 1-23-64	--	7.9	628	104 4.24	27 2.14	28 1.22	2 0.05	0	258 4.23	63 1.31	59 1.60	80 1.29	0.07	0.4	512
4-28-65	--	8.1	805	70 3.49	24 1.97	31 1.35	2 0.05	--	--	29 0.60	49 1.38	10.4 0.17	--	--	490
25/ 7W-15P 1 S 10-23-64	--	8.3	1007	139 6.94	37 3.04	59 2.57	2 0.05	--	--	39 0.81	103 2.90	--	--	--	552
4-28-65	--	8.1	739	62 3.09	27 2.38	47 2.04	2 0.05	--	--	29 0.60	60 1.69	--	--	--	499
															273
															274

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per percent			Mineral constituents in parts per million						
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	Total Hardness as CaCO <sub>3</sub> Computed		
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0																		
CHINO HYDRO SUBAREA Y01B1																		
2S/ 7W-15Q 1 S 10-23-64	--	7.0	1375	187 9.33	56 4.61	70 3.04	3 0.08	--	--	49 1.02	118 3.33	--	--	--	--	812 698		
4-29-65	--	7.7	1297	125 6.24	90 7.40	70 3.04	3 0.08	--	--	50 1.04	142 4.00	--	--	0.14	--	1040 683		
2S/ 7W-15Q 2 S 10-23-64	--	7.3	666	86 4.29	25 2.06	28 1.22	2 0.05	--	--	31 0.65	39 1.10	--	--	--	--	532 318		
4-28-65	--	8.2	525	61 3.04	11 0.90	23 1.00	2 0.05	--	--	19 0.40	18 0.51	--	--	--	--	330 197		
2S/ 7W-17D 1 S 2-18-65	--	7.7	594	73 3.64	20 1.64	19 0.83	2 0.05	0	247 4.05	32 0.67	21 0.59	58 0.94	0.4	0.04	--	372 264		
8-17-65	--	7.6	650	85 4.24	23 1.89	21 0.91	2 0.05	0	260 4.26	41 0.85	26 0.73	71 1.15	0.4	0.03	--	399 307		
2S/ 7W-17L 1 S 2-18-65	--	7.8	673	85 4.24	21 1.73	24 1.04	2 0.05	0	273 4.47	32 0.67	28 0.79	70 1.13	0.4	0	--	427 299		
8-17-65	--	7.9	568	60 3.64	25 1.8	15 0.91	1 0.05	0	63 4.15	9 0.52	11 0.62	52 0.84	0.4	0.02	--	397 256		
				60	24	15	1		68	8	10	14				338		

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million reactance value				Mineral constituents in parts per million					
				Calcium Co	Magne-sium Mg	Sodium Na	Potas-ium K	Carbon-ate CO <sub>3</sub>	Bicar-bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo-ride Cl	Ni-trate NO <sub>3</sub>	Fer-ride Fe	Bor-ate B	Sul-fo-ur SO <sub>2</sub>	I.D.S. Evap 180°C as SO <sub>2</sub> Computed	Total Evap 180°C as SO <sub>2</sub> Computed
MIDDLE SANTA ANA R HYDRO SUBUNIT Y0180																	
CHINO HYDRO SUBAREA Y0181																	
SANTA ANA RIVER HYDRO UNIT Y0180																	
2S/ 7W-20L 1 S 3- 8-65	--	7.9	468	56 2.79 57	15 1.23 25	19 0.83 17	2 0.05 1	0	229 3.75 76	16 0.33 7	20 0.56 11	17 0.27 5	0.3	0.02	285	201	
2S/ 7W-21L 1 S 8-16-65	--	8.0	589	74 3.69 57	20 1.64 25	25 1.09 17	2 0.05 1	0	265 4.34 68	34 0.71 11	22 0.62 10	42 0.68 11	0.4	0.02	376	267	
2S/ 7W-22K 1 S 2-18-65	--	7.6	1098	128 6.39 52	45 3.70 30	49 2.13 17	2 0.05	0	535 8.77 72	43 0.90 7	58 1.64 13	56 0.90 7	0.4	0.01	699	505	
8-16-65	--	8.0	800	104 5.19 57	29 2.38 26	32 1.39 15	3 0.08 1	0	389 6.38 71	27 0.56 6	48 1.35 15	43 0.69 8	0.3	0.02	514	379	
2S/ 7W-23E 1 S 2-18-65	--	7.6	725	90 4.49 57	26 2.14 27	27 1.17 15	2 0.05 1	0	312 5.11 67	36 0.75 10	34 0.96 13	53 0.85 11	0.4	0.02	443	332	
8-16-65	--	8.1	759	99 4.94 59	27 2.22 26	28 1.22 14	2 0.05 1	0	337 5.52 67	40 0.83 10	36 1.02 12	51 0.92 11	0.4	0	498	358	
2S/ 7W-27A 1 S 2-18-65	--	7.6	1005	113 5.64 52	35 2.88 26	54 2.35 22	2 0.05	0	500 8.20 73	45 0.94 8	47 1.31 12	45 0.73 7	0.4	0.06	455	426	
2S/ 7W-30G 1 S 3- 8-65	--	7.8	492	62 3.09 59	15 1.23 23	20 0.87 17	2 0.05 1	0	229 3.75 80	34 0.71 15	2 0.06 1	10 0.16 3	0.3	0	288	216	
															258		

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million reactivity value					Mineral constituents in parts per million				
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fuo- ride F	Bor- on B	Sili- co SiO <sub>2</sub>	T.D.S. Evap 180°C Evap 105°C as Computed Cocks	T. to. Hardness as CaCO <sub>3</sub>	
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0 CHINO HYDRO SUBAREA Y01B1																		
2S/ 7W-30H 1 S 10-29-64	--	8.1	640	80 3.99 56	17 1.40 20	37 1.61 23	3 0.08 1	0	307 5.03 71	66 1.37 19	21 0.59 8	8 0.13 2	0.1	0.05	--	398 383	270	
3- 8-65	--	7.7	653	84 4.19 60	15 1.23 18	34 1.48 21	3 0.08 1	0	298 4.88 70	69 1.44 21	17 0.48 7	11 0.18 3	0.3	0.03	--	415 380	271	
2S/ 7W-31H 1 S 2-17-65	--	7.9	365	38 1.90 45	7 0.58 14	39 1.70 40	2 0.05 1	0	189 3.10 73	34 0.71 17	11 0.31 7	7.5 0.12 3	0.3	0.04	--	244 232	124	
8-16-65	--	8.2	834	98 4.89 53	20 1.64 18	59 2.57 28	2 0.05 1	2	322 5.28 57	108 2.25 24	41 1.16 13	29 0.47 5	0.4	0.04	--	563 518	327	
2S/ 7W-32F 1 S 2-17-65	--	8.0	514	54 2.69 51	7 0.58 11	46 2.00 38	2 0.05 1	0	202 3.31 62	67 1.39 26	16 0.45 8	11 0.18 3	0.3	0	--	307 303	164	
8-16-65	--	8.3	520	55 2.74 49	9 0.74 13	48 2.09 37	2 0.05 1	7	205 3.36 59	47 0.98 17	29 0.82 14	17 0.27 5	0.4	0.01	--	289 315	174	
2S/ 7W-32K 3 S 8-16-65	--	8.1	317	17 0.85 26	4 0.33 10	48 2.09 63	1 0.03 1	0	142 2.33 72	19 0.40 12	11 0.31 10	12 0.19 6	0.8	0.33	--	189 183	59	
2S/ 7W-34K 2 S 2-17-65	--	7.7	1709	229 11.43 56	64 5.26 26	85 3.70 18	3 0.08 1	0	453 7.42 36	468 9.74 48	100 2.82 14	23 0.37 2	0.5	0	--	1304 1195	835	



TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million reactance value					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlor- ide Cl	N- itrate NO <sub>3</sub>	Fluor- ide F	Barium Ba	Sili- ca SiO <sub>2</sub>	Iron Fe	Hard- ness as CaCO <sub>3</sub>	
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0																		
CHINO HYDRO SUBAREA Y01B1																		
SANTA ANA RIVER HYDRO UNIT Y0100																		
2S/ 7W-34K 2 S 8-16-65	--	7.6	1653	219 10.93 57	57 4.69 25	79 3.43 18	3 0.08	0	405 6.64 35	421 8.89 47	102 2.88 15	27 0.44 2	0.6	0.02	--	1338 1114	782	
2S/ 7W-36D 2 S 2-17-65	--	7.5	823	96 4.79 56	14 1.15 13	59 2.57 30	2 0.05 1	0	339 5.56 65	49 1.02 12	53 1.49 17	31 0.50 6	0.2	0	--	522 471	297	
2S/ 8W-14B 1 S 2-18-65	--	7.7	426	56 2.79 62	11 0.90 20	17 0.74 17	2 0.05 1	0	198 3.25 74	25 0.52 12	11 0.31 7	20 0.32 7	0.3	0	--	278 240	185	
8-17-65	--	7.5	365	47 2.35 60	10 0.82 21	16 0.70 18	2 0.05 1	0	186 3.05 77	19 0.40 10	11 0.31 8	12 0.19 5	0.4	0.05	--	215 209	159	
2S/ 8W-14H 1 S 2-18-65	--	7.9	368	47 2.35 60	10 0.82 21	16 0.70 18	2 0.05 1	0	178 2.92 77	22 0.46 12	8 0.23 6	12 0.19 5	0.4	0	--	226 205	159	
8-17-65	--	7.7	347	41 2.05 54	13 1.07 28	15 0.65 17	2 0.05 1	0	175 2.87 78	19 0.40 11	9 0.25 7	9.5 0.15 4	0.4	0	--	196 195	156	
2S/ 8W-22B 1 S 2-18-65	--	7.9	380	48 2.40 60	8 0.66 17	20 0.87 22	2 0.05 1	0	181 2.97 74	31 0.65 16	9 0.25 6	7.5 0.12 3	0.4	0	--	227 215	153	
8-17-65	--	7.8	395	52 2.59 60	10 0.82 19	19 0.83 19	2 0.05 1	0	190 3.11 72	35 0.73 17	11 0.31 7	8.5 0.14 3	0.3	0.03	--	236 231	171	

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent reactance value					Mineral constituents in parts per million				
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Flu- oride F	Boron B	Sili- co SiO <sub>2</sub>	T.O.S. Evap- orated as CaCO <sub>3</sub>	Total Hardness as CaCO <sub>3</sub>	
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0 CHINO HYDRO SUBAREA Y01B1																		
25/ 8W-23C 4 S 3- 8-65	--	7.7	572	74 3.69 62	15 1.23 21	22 0.96 16	2 0.05 1	0	222 3.64 62	49 1.02 17	27 0.76 13	30 0.48 8	0.3	0.09	--	400 328	246	
25/ 8W-25L 1 S 2-18-65	--	7.7	678	87 4.34 59	20 1.64 22	30 1.30 18	3 0.08 1	0	222 3.64 50	129 2.69 37	21 0.59 8	2.1 0.39 5	0.2	0.02	--	457 299	276	
3- 8-65	--	7.8	644	86 4.29 64	15 1.23 18	26 1.13 17	2 0.05 1	0	214 3.51 52	109 2.27 34	19 0.54 8	25 0.40 6	0.3	0.03	--	420 388	276	
8-17-65	--	7.5	592	78 3.89 61	15 1.23 19	28 1.22 19	2 0.05 1	0	214 3.51 55	97 2.02 31	18 0.51 8	24 0.39 6	0.4	0.05	--	413 368	256	
25/ 8W-25M 1 S 2-18-65	--	7.7	487	63 3.14 63	10 0.82 16	22 0.96 19	2 0.05 1	0	210 3.44 67	37 0.77 15	28 0.79 15	7 0.11 2	0.3	0.01	--	307 273	198	
3- 8-65	--	7.8	484	63 3.14 63	11 0.90 18	21 0.91 18	2 0.05 1	0	202 3.31 68	37 0.77 16	24 0.68 14	6 0.10 2	0.3	0.80	--	288 264	202	
8-17-65	--	7.5	512	67 3.34 60	14 1.15 21	23 1.00 18	2 0.05 1	0	222 3.64 67	40 0.83 15	31 0.87 16	7.4 0.12 2	0.3	0.02	--	300 294	225	
25/ 8W-26C 2 S 3- 8-65	--	7.7	823	115 5.74 64	22 1.81 20	30 1.30 15	3 0.08 1	0	274 4.49 51	142 2.96 34	34 0.96 11	22 0.35 4	0.4	0.02	--	554 503	378	

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent					Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Barium Ba	Sulfide S <sub>2</sub> O <sub>3</sub>	TDS Evaporates as CaCO <sub>3</sub>		
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0																		
CHINO HYDRO SUBAREA Y01B1																		
SANTA ANA RIVER HYDRO UNIT Y0100																		
2S/ 8W-26K 1 S 2-18-65	--	7.6	987	118 5.89 53	33 2.71 24	55 2.39 22	3 0.08 1	0	366 6.00 55	179 3.73 34	41 1.16 11	6.3 0.10 1	0.6	0.05	--	631 616	430	
3S/ 7W- 3N 1 S 2-17-65	--	7.7	644	81 4.04 58	18 1.48 21	31 1.35 20	2 0.05 1	0	282 4.62 68	46 0.96 14	36 1.02 15	15 0.24 4	0.2	0	--	382 368	276	
8-16-65	--	8.2	675	85 4.24 56	22 1.81 24	34 1.48 20	2 0.05 1	2	290 4.75 65	47 0.98 13	46 1.30 18	16 0.26 4	0.4	0	--	436 397	303	
3S/ 7W- 3R 1 S 8-16-65	--	7.7	616	79 3.94 58	17 1.40 21	32 1.39 21	2 0.05 1	0	300 4.92 72	38 0.79 12	31 0.87 13	15.5 0.25 4	0.3	0	--	413 362	267	
3S/ 7W- 4A 1 S 2-17-65	--	7.9	808	98 4.89 56	23 1.89 22	43 1.87 21	2 0.05 1	0	321 5.26 60	84 1.75 20	49 1.38 16	22 0.35 4	0.3	0	--	506 479	339	
3S/ 7W- 4D 1 S 2-17-65	--	7.8	809	67 3.34 52	10 0.82 13	50 2.17 34	2 0.05 1	0	268 4.39 69	43 0.90 14	27 0.76 12	19 0.31 5	0.3	0.02	--	359 350	208	
8-16-65	--	7.8	442	39 1.95 41	7 0.58 12	51 2.22 46	2 0.05 1	0	188 3.08 66	35 0.73 16	21 0.59 13	16 0.26 6	0.5	0.14	--	254 264	127	
3S/ 7W- 4H 1 S 2-17-65	--	7.7	991	113 5.64 52	30 2.47 23	62 2.70 25	3 0.08 1	0	403 6.61 61	80 1.67 15	71 2.00 19	31 0.50 5	0.3	0	--	622 586	406	

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million					Mineral constituents in parts per million				
				Calcium Co	Magne-sium Mg	Sodium Na	Potas-sium K	Carbon-ate CO <sub>3</sub>	Bicar-bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo-ride Cl	Ni-trate NO <sub>3</sub>	Fer-ride Fe	Ba-ron Ba	Sul-phate SO <sub>4</sub>	IO <sub>3</sub> -Evap 180°C Evap 105°C Computed	Total hardness as CaCO <sub>3</sub>	
MIDDLE SANTA ANA R HYDRO SUBUNIT YOLBO																		
CHINO HYDRO SUBAREA YOLB1																		
3S/ 7W-4H 1 S 8-16-65	--	7.9	1074	125 6.24 52	34 2.80 23	65 2.83 24	3 0.08 1	0	420 6.88 59	86 1.79 15	94 2.65 23	25 0.40 3	0.5	0.02	--	738 639	452	
3S/ 7W-10C 1 S 2-17-65	--	7.8	551	66 3.29 57	13 1.07 19	31 1.35 23	2 0.05 1	0	254 4.16 71	35 0.73 12	27 0.76 13	15 0.21 4	0.2	0	--	327 312	218	
8-16-65	--	8.2	560	68 3.39 56	15 1.25 20	33 1.43 23	2 0.05 1	5 0.17 3	256 4.20 70	30 0.62 10	26 0.79 13	14 0.23 4	0.5	0.01	--	331 321	231	
1N/ 6W-11B 1 S 1-28-65	--	7.3	365	50 2.50 62	8 0.66 16	19 0.83 21	2 0.05 1	0	207 3.39 82	11 0.23 6	13 0.37 9	4.3 0.15 4	0.2	0.05	--	219 214	158	
1N/ 6W-25K 1 S 1-28-65	--	8.0	1087	86 4.29 37	29 2.38 20	112 4.87 42	5 0.13 1	0	158 2.59 22	291 6.06 52	107 3.02 26	2.1 0.03 1	0.6	0.15	--	727 710	334	
6-29-65	--	7.6	902	72 3.59 39	25 2.06 22	80 3.48 38	5 0.13 1	0	142 2.33 25	230 4.79 51	77 2.17 23	3.3 0.05 1	0.6	0.11	--	567 563	283	
CLAREMONT HEIGHTS HYDRO SUBAREA YOLB3																		
1N/ 8W-24L 1 S 1-28-65	--	7.9	400	57 2.84 65	13 1.07 24	10 0.43 10	2 0.05 1	0	220 3.61 81	35 0.73 16	3 0.08 2	3.1 0.05 1	0.5	0.04	--	252 232	196	

TABLE E-1

ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reactance value				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fer- ride Fe	Bor- on B	Sul- fur S	Total Dissolved Solids TDS	
MIDDLE SANTA ANA R HYDRO SUBUNIT YO1B0 CLAREMONT HEIGHTS HYDRO SUBAREA YO1B3																	
1N/ 8W-24L 1 S 7- 1-65	--	7.6	472	67 3.34 63	17 1.40 26	12 0.52 10	2 0.05 1	0	234 3.84 74	41 0.85 16	6 0.17 3	19 0.31 6	0.8	0.03	--	314 280	237
1N/ 8W-35J 1 S 1-28-65	--	7.8	357	53 2.64 69	8 0.66 17	11 0.48 13	2 0.05 1	0	184 3.02 78	24 0.50 13	6 0.17 4	11 0.18 5	0.3	0.03	--	214 206	165
CUCAMONGA HYDRO SUBAREA YO1B4																	
1N/ 7W-27Q 1 S 7- 1-65	--	7.7	383	38 1.90 47	13 1.07 26	24 1.04 26	1 0.03 1	0	178 2.92 72	34 0.71 17	7 0.20 5	14 0.23 6	0.5	0.01	--	258 219	149
1N/ 7W-33A 1 S 1-28-65	--	7.7	440	49 2.45 55	13 1.07 24	20 0.87 20	2 0.05 1	0	142 2.33 53	35 0.73 16	11 0.31 7	66 1.06 24	0.3	0.01	--	291 266	176
7- 1-65	--	7.5	429	46 2.30 52	14 1.15 26	22 0.96 22	2 0.05 1	0	142 2.33 53	38 0.79 18	10 0.28 6	60 0.97 22	0.5	0	--	288 262	173
1N/ 7W-34H 1 S 7- 1-65	--	7.9	384	45 2.25 54	9 0.74 18	25 1.09 26	2 0.05 1	0	178 2.92 72	31 0.65 16	7 0.20 5	16 0.26 6	0.4	0.04	--	240 213	150



TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent reactance value				Mineral constituents in parts per million				
				Calcium	Magne- sium	Sodium	Potas- sium	Carbon- ate	Bicar- bonate	Sulfate	Chlo- ride	Ni- trate	Fluo- ride	Boron	Sili- ca	Total hardness as CaCO <sub>3</sub>
Date sampled				Co	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>	as CaCO <sub>3</sub>
MIDDLE SANTA ANA R HYDRO SUBUNIT																
TEMESCAL HYDRO SUBAREA																
YO1B0																
3S/ 6W-28L 1 S	--	7.8	1418	128	32	129	5	0	397	146	121	93	0.3	0.26	--	451
3- 5-65				6.39	2.63	5.61	0.13		6.51	3.04	3.41	1.50				886
				43	18	38	1		45	21	24	10				850
9-21-65	--	7.5	1379	126	38	125	5	0	403	148	125	106	0.6	0.26	--	471
				6.29	3.13	5.44	0.13		6.61	3.08	3.53	1.71				910
				42	21	36	1		44	21	24	11				872
3S/ 6W-28M99 S	--	7.7	1424	129	32	130	5	0	394	147	122	100	0.8	0.32	--	454
3- 5-65				6.44	2.63	5.65	0.13		6.46	3.06	3.44	1.61				882
				43	18	38	1		44	21	24	11				860
9-21-65	--	7.5	1523	133	35	144	5	0	416	152	145	103	0.6	0.40	--	476
				6.64	2.88	6.26	0.13		6.82	3.16	4.09	1.66				980
				42	18	39	1		43	20	26	11				923
3S/ 6W-30F 4 S	--	7.1	1522	125	38	172	4	--	--	170	258	--	--	0.45	--	469
10-22-64				6.24	3.13	7.48	0.10		--	3.54	7.28	--				1080
4-29-65	--	7.8	1879	102	46	170	4	--	--	162	293	--	--	0.43	--	444
				5.09	3.78	7.39	0.10		--	3.37	8.26	--				1150
3S/ 6W-31D 2 S	--	7.7	1164	113	31	91	3	0	295	130	127	61	0.7	0.15	--	410
8-10-65				5.64	2.55	3.96	0.08		4.84	2.71	3.58	0.98				770
				46	21	32	1		40	22	30	8				702
3S/ 7W-15Q 1 S	--	7.6	2269	141	56	206	4	--	--	226	359	--	--	0.80	--	583
4-29-65				7.04	4.61	8.96	0.10		--	4.71	10.12	--				1450

# ANALYSES OF GROUND WATER SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million percent reactance value					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	Total Dissolved Solids mg/L		
MIDDLE SANTA ANA R HYDRO SUBUNIT Y0180																		
TEMESCAL HYDRO SUBAREA Y0185																		
3S/ 7W-15Q 3 S 3- 5-65	--	7.2	2243	201 10.03	59 4.85	196 8.52	0.13	5	0	508 8.33	231 4.81	359 10.12	0.5	0.85	--	1545	745	
				43	21	36	1			35	20	43				1322		
4-29-65	--	7.5	2088	--	--	--	--	0	0	461 7.56	--	352 9.93	--	--	--	681		
3S/ 7W-21N 1 S 3- 5-65	--	7.5	1081	122 6.09	46 3.78	48 2.09	1	0	0	290 4.75	254 5.29	48 1.35	0.5	0.18	--	804	494	
				51	32	17				40	45	11				691		
9-21-65	--	7.4	1081	118 5.89	48 3.95	52 2.26	2	0	0	293 4.80	246 5.12	54 1.52	0.4	0.17	--	760	492	
				48	33	19				40	43	13				695		
3S/ 7W-22A 1 S 4-29-65	--	7.4	2183	--	--	--	--	0	0	454 7.44	--	364 10.26	--	--	--	649		
3S/ 7W-22A 2 S 4-29-65	--	7.4	1916	--	--	--	--	0	0	459 7.52	--	278 7.84	--	--	--	607		
3S/ 7W-22A 4 S 10-22-64	--	6.7	2112	216 10.78	52 4.28	228 9.91	15 0.38	--	--	--	266 5.54	357 10.07	--	1.22	--	1560	754	
4-29-65	--	7.5	1792	--	--	--	--	0	0	471 7.72	--	254 7.16	--	--	--	554		

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million percent reactance value				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlor- ide Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	TDS Evap 180°C Exp 105°C as Computed Calc3	
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0																	
TENESCAL HYDRO SUBAREA Y01B5																	
SANTA ANA RIVER HYDRO UNIT Y0100																	
3S/ 7W-22A 4 S 4-29-65	--	7.8	1891	110 5.49	37 3.04	202 8.78	13 0.33	--	--	228 4.75	263 7.42	--	--	0.28	--	1170	427
3S/ 7W-22G 2 S 3- 5-65	--	7.6	1635	151 7.53	36 2.96	146 6.35	4 0.10	0	428 7.01	176 3.66	200 5.64	33 0.53	0.6	0.55	--	964	525
3S/ 7W-22H 1 S 10-22-64	--	6.9	1357	44 193 9.63	17 50 4.11	37 215 9.35	1 8 0.20	--	--	22 233 4.85	33 339 9.56	--	--	0.55	--	958	688
4-29-65	--	7.6	2025	117 5.84	46 3.78	192 8.35	8 0.20	--	--	--	237 4.93	234 6.60	--	--	0.93	--	1280 481
3S/ 7W-22J 4 S 10-22-64	--	7.3	1392	149 7.44	30 2.47	127 5.52	3 0.08	--	--	144 3.00	201 5.67	--	--	0.30	--	1044	496
3- 5-65	--	7.5	1556	153 7.63	37 3.04	122 5.30	3 0.08	0	423 6.93	154 3.21	187 5.27	42 0.68	0.6	0.27	--	901	534
4-29-65	--	7.7	1527	48 --	19 --	33 --	--	0	417 6.83	--	200 5.64	--	--	--	--	907	577
4-29-65	--	8.1	1586	140 6.99	46 3.78	120 5.22	4 0.10	--	--	172 3.58	199 5.61	--	--	0.40	--	1010	539

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million				Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Bor- on B	Sil- ica SiO <sub>2</sub>	IO <sub>3</sub> Extrap- trapolated Computer
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0																
TEMESCAL HYDRO SUBAREA Y01B5																
SANTA ANA RIVER HYDRO UNIT Y0100																
35/ 7W-22L 1 S 3-5-65	--	7.7	960	98 4.89	25 2.06	62 2.70	3 0.08	0	217 3.56	117 2.14	91 2.57	56 0.90	0.5	0.16	627 559	349
9-21-65	--	7.6	967	97 4.84	27 2.22	63 2.74	3 0.08	0	223 3.65	116 2.42	96 2.71	63 1.02	0.6	0.20	605 575	353
35/ 7W-23D 1 S 10-22-64	--	6.7	1452	195 9.73	52 4.28	228 9.91	12 0.31	--	--	250 5.21	377 10.63	--	--	1.10	1464	701
4-29-65	--	7.9	2269	102 5.09	48 3.95	220 9.57	15 0.38	--	--	228 4.75	376 10.60	--	--	1.26	1390	452
35/ 7W-23D 2 S 10-22-64	--	7.0	1416	188 9.38	44 3.62	224 9.74	16 0.41	--	--	238 4.96	367 10.55	--	--	1.20	1524	651
4-29-65	--	7.6	1989	111 5.54	43 3.54	192 8.35	18 0.46	--	--	244 5.08	283 7.98	--	--	0.62	1320	454
35/ 7W-23J 4 S 10-22-64	--	7.0	1888	178 8.88	44 3.62	206 8.96	7 0.18	--	--	184 3.83	340 9.59	--	--	0.89	1276	626
4-29-65	--	7.8	1999	108 5.39	43 3.54	184 8.00	6 0.15	--	--	187 3.89	308 8.63	--	--	0.68	1190	447

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp. when sampled in °F	pH	Specific conductance (microhmhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Ferric oxide	Total hardness as CaCO <sub>3</sub>
Date sampled				Co	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	Computed
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0														
TEDESCAL HYDRO SUBAREA Y01B5														
35/ 7W-23K 1 S	--	6.7	1604	166	32	178	0.13	5	--	--	173	248	--	546
10-22-64				8.28	2.63	7.74				3.60	6.99		--	1532
4-29-65	--	8.2	1671	148	38	165	0.10	4	--	--	169	226	--	526
				7.39	3.13	7.17				3.52	6.57	11	--	1030
35/ 7W-25A 3 S	--	6.8	1699	150	43	196	0.15	6	--	--	197	282	--	552
10-22-64				7.49	3.54	8.52				4.10	7.95		--	1256
4-29-65	--	8.0	1781	84	42	172	0.10	4	--	--	192	240	--	382
				4.19	3.45	7.48				4.00	6.77		--	1060
35/ 7W-28B 1 S	--	7.7	1000	109	37	49	0.05	2	0	261	197	61	0.4	424
3- 5-65				5.44	3.04	2.13			4.28	4.10	1.72	0.47	--	628
				51	29	20			40	39	16	4	--	613
9-21-65	--	7.4	1005	109	41	46	0.05	2	0	263	207	65	0.4	700
				5.44	3.37	2.00			4.31	4.31	1.83	0.58	--	636
				50	31	18			39	39	17	5	--	
ARLINGTON HYDRO SUBAREA Y01B6														
35/ 5W-14N 1 S	70	8.2	1400	160	29	70	0.18	7	0	375	160	114	0.2	987
11- 5-64				7.98	2.38	3.04			6.15	3.33	3.21	1.16	--	518
				59	18	22	1		44	24	23	8	--	797



TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million reagent value					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	TGS Evap. Residue at 105°C as CaCO <sub>3</sub>	Hardness as CaCO <sub>3</sub>	
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0																		
ARLINGTON HYDRO SUBAREA Y01B6																		
3S/ 5W-14N 1 S 3-26-65	68	7.6	1429	114 5.69 39	44 3.62 25	121 5.26 36	5 0.13	0	395 6.47 45	173 3.60 25	96 2.71 19	106 1.71 12	0.5	0.40	--	954 854	466	
3S/ 5W-15A 1 S 6-25-65	--	7.5	1965	160 7.98 42	62 5.10 27	131 5.70 30	7 0.18	0	379 6.21 33	171 3.56 19	277 7.81 41	81 1.31 7	0.3	0.33	--	1348 1076	655	
3S/ 5W-23C 1 S 11- 5-64	74	8.1	810	76 3.79 50	14 1.15 15	56 2.43 32	6 0.15	0	165 2.70 36	48 1.00 13	124 3.50 47	20 0.32 4	0.5	0.20	--	509 426	247	
3-26-65	72	7.7	823	62 3.09 40	22 1.81 24	61 2.65 35	5 0.13	0	172 2.82 37	54 1.12 15	111 3.13 41	30 0.48 6	0.7	0.10	--	484 430	245	
3S/ 5W-24R 1 S 10-30-64	70	7.8	1760	176 8.78 50	50 4.11 23	104 4.52 26	8 0.20	0	259 4.25 24	132 2.75 15	385 10.86 60	12 0.19 1	0.3	0.40	--	1126 995	645	
3-26-65	68	8.1	1378	106 5.29 40	40 3.29 25	103 4.48 34	7 0.18	0	209 3.43 26	108 2.25 17	246 6.94 53	23 0.37 3	0.7	0.12	--	855 737	429	
3S/ 5W-25A 1 S 11- 5-64	70	8.1	720	74 3.69 53	16 1.32 19	44 1.91 27	4 0.10	0	192 3.15 46	54 1.12 16	53 1.49 22	68 1.10 16	0.2	0.10	--	505 408	251	
3-26-65	70	7.3	748	57 2.84 39	26 2.14 29	51 2.22 30	4 0.10	0	192 3.15 45	63 1.13 19	56 1.58 23	59 0.95 14	0.4	0.15	--	457 411	242	

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					Mineral constituents in parts per million									
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlor- ide Cl	Ni- trate NO <sub>3</sub>	Ful- vic F	Barium Ba	Sulfate SO <sub>4</sub>	Total Dissolved Solids as CaCO <sub>3</sub>		
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0																		
ARLINGTON HYDRO SUBAREA Y01B6																		
3S/ 6W-22L 2 S 6-25-65	70	7.7	1550	158 7.88 44	27 2.22 12	177 7.70 43	7 0.18 1	0	384 6.29 35	278 5.79 32	185 5.22 29	56 0.90 5	0.5	0.35	--	1104	505	
3S/ 6W-24P 1 S 6-25-65	--	7.6	1400	144 7.19 50	24 1.97 14	115 5.00 35	5 0.13 1	0	232 3.80 27	237 4.93 35	139 3.92 28	97.0 1.56 11	0.1	0.31	--	948	458	
RIVERSIDE HYDRO SUBAREA Y01B7																		
1S/ 4W-28L 2 S 3-25-65	--	7.5	669	--	--	--	--	--	--	59 1.23	44 1.24	20 0.32	--	--	--	--	--	
5-19-65	68	7.5	770	67 3.34 43	14 1.15 15	74 3.22 41	3 0.08 1	0	266 4.36 56	71 1.48 19	51 1.44 19	28 0.45 6	1.0	0.12	--	479	225	
8- 9-65	70	7.4	746	--	--	--	--	--	--	62 1.29	52 1.47	30 0.48	--	--	--	--	--	
1S/ 4W-28N 5 S 10- 7-64	--	7.5	712	--	--	--	--	--	--	--	51 1.44	23 0.37	--	--	--	--	--	
3-25-65	--	7.4	775	--	--	--	--	--	--	85 1.77	53 1.49	26 0.42	--	--	--	--	--	

ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent reactance value					Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	TDS Evaporates as CaCl <sub>2</sub>		
Date sampled				Ca	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>	Computed		
MIDDLE SANTA ANA R HYDRO SUBUNIT RIVERSIDE SUBAREA																		
				Y01B0					Y01B7					Y0100				
1S/ 4W-28N 5 S 5-19-65	67	7.6	770	83 4.14 53	15 1.23 16	53 2.30 30	4 0.10 1	4	0	251 4.11 53	82 1.71 22	23 0.37 5	0.7	0.22	--	491 439		
1S/ 4W-28R 1 S 3-19-65	--	7.7	645	--	--	--	--	--	--	--	33 0.69	30 0.48	--	--	--	--		
5-17-65	70	7.7	658	46 2.30 35	11 0.90 14	76 3.30 50	2 0.05 1	0	235 3.85 59	36 0.75 11	53 1.42 23	30 0.48 7	0.7	0.10	--	410 370		
8- 9-65	--	7.7	648	--	--	--	--	--	--	--	36 0.75	32 0.52	--	--	--	160		
1S/ 4W-29F 1 S 3- 9-65	--	7.2	1063	168 8.38 69	33 2.71 22	20 0.87 7	5 0.13 1	0	276 4.52 38	300 6.25 53	24 0.68 6	26 0.42 4	0.5	0.16	--	850 712		
1S/ 4W-29H 1 S 10- 1-64	--	7.8	755	66 3.29 43	13 1.07 14	74 3.22 42	5 0.13 2	0	254 4.16 55	64 1.33 17	66 1.86 24	17 0.27 4	0.7	0.20	28	465 459		
3- 5-65	--	7.5	695	67 3.34 48	11 0.90 13	60 2.61 38	4 0.10 1	0	240 3.93 57	69 1.44 21	43 1.21 18	20 0.32 5	0.7	0.10	--	416 393		
9-21-65	--	7.5	753	63 3.14 41	13 1.07 14	76 3.30 43	5 0.13 2	0	246 4.03 53	69 1.44 19	64 1.80 23	24 0.39 5	0.7	0.21	--	445 436		

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per million reactance value					Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	Iron	Copper	Tetrahydrofuran hardness
Date sampled				Ca	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>	Fe	Cu	Hardness
MIDDLE SANTA ANA R HYDRO SUBUNIT Y0100																		
RIVERSIDE HYDRO SUBAREA Y01B7																		
1S/ 4W-29H 3 S 3-19-65	65	7.5	796	--	--	--	--	--	--	--	71 1.48	77 2.17	14 0.23	--	--	--	--	--
5-19-65	--	7.8	780	88 4.39 55	16 1.32 17	49 2.13 27	4 0.10 1	0	258 4.23 53	74 1.54 19	70 1.97 25	11 0.18 2	0.8	0.15	--	--	--	518 440 286
8- 9-65	--	7.4	801	--	--	--	--	--	--	64 1.33	78 2.20	15 0.24	--	--	--	--	--	--
1S/ 4W-29Q 1 S 9-21-65	--	7.6	646	67 3.34 50	13 1.07 16	51 2.22 33	4 0.10 1	0	240 3.93 59	58 1.21 18	39 1.10 16	27 0.44 7	0.6	0.22	--	--	--	380 378 221
1S/ 4W-29Q 3 S 3- 5-65	--	7.8	676	59 2.94 43	11 0.90 13	66 2.87 42	4 0.10 1	0	232 3.80 57	62 1.29 19	37 1.04 16	35 0.56 8	0.6	0.08	--	--	--	418 389 192
4- 1-65	--	7.3	679	--	--	--	--	--	--	61 1.27	40 1.13	31 0.50	--	--	--	--	--	--
1S/ 4W-30D 6 S 3- 9-65	--	7.8	454	61 3.04 65	10 0.82 18	17 0.74 16	2 0.05 1	0	198 3.25 68	36 0.75 16	12 0.34 7	26 0.42 9	0.3	0.02	--	--	--	318 262 193
1S/ 4W-30L 4 S 3- 9-65	--	7.3	1227	154 7.68 60	21 1.73 14	74 3.22 25	4 0.10 1	0	444 7.28 56	101 2.10 16	90 2.54 20	63 1.02 8	0.5	0.45	--	--	--	800 471 726

TABLE E-1

-1.15-



TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				Mineral constituents in parts per million						
				Calcium	Magne- sium	Sodium	Potas- sium	Carbon- ate	Bicar- bonate	Sulfate	Chlo- ride	Ni- trate	Flu- oride	Ba- rium	Sil- ica	Iron	Evap (Boo- Evap) as CaCO <sub>3</sub>	
Date sampled				Co	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>	Fe	Cu	Hardness as CaCO <sub>3</sub>
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0																		
RIVERSIDE HYDRO SUBAREA Y01B7																		
1S/ 4W-31D 1 S 8- 5-65	--	7.1	858	--	--	--	--	--	--	68	79	14	--	--	--	--	--	--
										1.42	2.23	0.23						
1S/ 4W-32B 2 S 9-24-65	--	7.9	697	72	15	55	4	0	257	63	44	28	0.6	0.25	--	--	--	241
				3.59	1.23	2.39	0.10		4.21	1.31	1.24	0.45						
				49	17	33	1		58	18	17	6						
1S/ 4W-32E11 S 5-19-65	57	7.8	802	97	17	46	4	0	289	68	60	25	0.6	0.17	--	--	--	312
				4.84	1.40	2.00	0.10		4.74	1.41	1.69	0.40						
				58	17	24	1		57	17	20	5						
1S/ 4W-32E12 S 12- 3-64	68	7.3	875	--	--	--	--	--	--	70	86	6	--	--	--	--	--	460
										1.46	2.43	0.10						
12- 3-64	68	7.5	875	--	--	--	--	--	--	69	86	5	--	--	--	--	--	
										1.44	2.43	0.08						
12- 3-64	69	7.5	876	--	--	--	--	--	--	69	86	6	--	--	--	--	--	
										1.44	2.43	0.10						
12- 3-64	76	7.3	876	--	--	--	--	--	--	69	86	6	--	--	--	--	--	
										1.44	2.43	0.10						
12- 3-64	72	7.3	873	--	--	--	--	--	--	68	86	6	--	--	--	--	--	
										1.42	2.43	0.10						

# ANALYSES OF GROUND WATER SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				Mineral constituents in parts per million				
				Ca mg	Mg mg	Na mg	Potas- sum K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlor- ide Cl	Ni- trate NO <sub>3</sub>	Flu- oride F	Bor- on B	Sil- ica SiO <sub>2</sub>	I.D.S. Evap 105°C Computed Calc'd
MIDDLE SANTA ANA R HYDRO SUBUNIT Y0180																
RIVERSIDE HYDRO SUBAREA Y0187																
15/ 4W-32E12 S 3- 4-65	--	7.3	863	--	--	--	--	--	--	--	--	74 1.54	87 2.45	30 0.48	--	--
3- 4-65	--	8.0	855	--	--	--	--	--	--	--	--	72 1.50	85 2.40	8 0.13	--	--
3- 4-65	--	7.8	858	--	--	--	--	--	--	--	--	72 1.50	84 2.37	8 0.13	--	--
3- 4-65	--	7.7	858	--	--	--	--	--	--	--	--	73 1.52	63 2.34	8 0.13	--	--
3- 4-65	--	7.6	853	--	--	--	--	--	--	--	--	70 1.46	88 2.48	6 0.10	--	--
6- 1-65	68	7.6	854	69 3.44 39	12 0.99 11	97 4.22 48	6 0.15 2	0	288 4.72 54	72 1.50 17	77 2.17 25	19 0.31 4	0.6	0.50	--	530 222
6- 1-65	67	7.6	853	68 3.39 39	10 0.82 9	100 4.35 50	5 0.15 2	0	290 4.75 54	74 1.54 18	76 2.14 24	19 0.31 4	0.6	0.50	--	495 211
6- 2-65	67	7.1	856	69 3.44 39	12 0.99 11	98 4.26 48	6 0.15 2	0	285 4.67 54	74 1.54 18	78 2.20 25	18 0.29 3	0.6	0.50	--	520 222
																496

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million reactance value					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	No- trate NO <sub>3</sub>	Ful- vate F	Fluor- ide F	Silica SiO <sub>2</sub>	Iron Fe	Total Hardness as CaCO <sub>3</sub>	
MIDDLE SANTA ANA R HYDRO SUBUNIT Y018U RIVERSIDE HYDRO SUBAREA Y0187																		
1S/ 4W-32E12 S 6- 2-65	70	8.0	844	69 3.44	13 1.07	4.17 12	96 4.7	0 0.15	288 4.72	72 1.50	78 2.20	17 0.27	0.5	0.48	--	510	--	226
6- 2-65	69	7.7	859	70 3.49	12 0.99	96 4.17	96 4.7	0 0.15	288 4.72	72 1.50	77 2.17	18 0.29	0.6	0.48	--	520	--	224
8- 4-65	69	7.2	855	--	--	--	--	--	--	69 1.44	82 2.31	8 0.13	--	--	--	--	--	494
8- 4-65	69	7.3	861	--	--	--	--	--	--	69 1.44	83 2.34	8 0.13	--	--	--	--	--	494
1S/ 4W-32M 1 S 5-18-65	--	7.8	412	59 2.94	11 0.90	10 0.43	10 4.3	3 0.08	198 3.25	35 0.73	5 0.14	11 0.18	0.2	0.01	--	264	--	192
8- 5-65	--	7.7	413	--	--	--	--	--	--	36 0.75	6 0.17	13 0.21	--	--	--	--	--	232
1S/ 5W-24E 1 S 3- 9-65	--	7.7	433	63 3.14	8 0.66	13 0.57	13 4.7	2 0.05	196 3.21	26 0.54	8 0.23	24 0.39	0.3	0.05	--	266	--	190
9-20-65	--	7.9	354	53 2.64	6 0.49	13 0.57	13 4.7	2 0.05	184 3.02	17 0.35	7 0.20	11 0.18	0.2	0.06	--	205	--	157
				70	13	15	15	1	81	9	5	5				200		

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents percent				mineral constituents in parts per million			
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Fluoride	Boron	Silica	Trace metals
Date sampled				Co	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	F	B	SiO <sub>2</sub>	combined total
MIDDLE SANTA ANA RIVER SUBUNIT Y01B7															
RIVERSIDE HYDRO SUBAREA															
15/ 5W-240 1 S	--	7.6	426	56	12	16	2	0	194	29	10	0.3	0	26	280
10- 2-64				2.79	0.99	0.70	0.05		3.18	0.60	0.28				271
				62	22	15	1		71	13	6				
9-20-65	--	7.9	423	56	11	15	2	0	190	29	9	0.4	0.07	--	264
				2.79	0.90	0.65	0.05		3.11	0.60	0.25				185
				64	21	15	1		71	14	6				240
15/ 5W-25A 2 S	--	7.5	446	61	12	15	3	0	203	36	5	0.5	0	--	280
2- 4-65				3.04	0.99	0.65	0.08		3.33	0.75	0.14				202
				64	21	14	2		71	16	3				262
15/ 5W-25B 2 S	--	7.7	391	51	10	16	2	0	192	22	8	0.4	0.02	--	248
2- 4-65				2.54	0.82	0.70	0.05		3.15	0.46	0.23				168
				62	20	17	1		75	11	6				225
3- 1-65	--	7.8	403	55	11	15	2	0	193	24	8	0.4	0	--	254
				2.74	0.90	0.65	0.05		3.16	0.50	0.23				182
				63	21	15	1		73	12	5				237
15/ 5W-25E 1 S	--	7.9	436	61	11	14	2	0	203	28	9	0.3	0	25	285
10- 2-64				3.04	0.90	0.61	0.05		3.33	0.58	0.25				197
				66	20	13	1		73	13	5				275
3- 3-65	--	7.8	355	52	6	11	2	0	179	16	5	0.3	0.04	--	214
				2.59	0.49	0.48	0.05		2.93	0.33	0.14				154
				72	14	13	1		62	9	4				190
9-20-65	--	7.7	432	61	10	15	2	0	202	27	9	0.3	0.09	--	260
				3.04	0.82	0.65	0.05		3.31	0.56	0.25				193
				67	18	14	1		73	12	6				248

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				Mineral constituents in parts per million					Total hardness as CaCO <sub>3</sub>	
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	IDS Evap 180°C Evap 105°C Computed		
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0 RIVERSIDE HYDRO SUBAREA Y01B7																		
SANTA ANA RIVER HYDRO UNIT Y0100																		
1S/ 5W-25L 2 S 3-18-65	68	7.3	544	--	--	--	--	--	--	31 0.65	19 0.54	29 0.47	--	--	--	--	--	--
5-19-65	--	7.3	529	62 3.09	11 0.90	32 1.39	4 0.10	0	229 3.75	35 0.73	17 0.48	30 0.48	0.2	0.15	--	335 304	200	--
8- 4-65	--	7.2	527	--	--	--	--	--	--	34 0.71	17 0.48	32 0.52	--	--	--	--	--	--
1S/ 5W-25R 1 S 10- 2-64	--	7.5	1196	95 4.74	14 1.15	105 4.57	55 1.41	0	238 3.90	150 3.12	143 4.03	51 0.82	0.7	0.24	25	760 756	295	--
3- 9-65	--	7.4	1310	105 5.24	16 1.32	115 5.00	43 1.10	0	252 4.13	169 3.52	146 4.12	49 0.79	0.6	0.29	--	825 768	328	--
3-19-65	--	7.2	1284	--	--	--	--	--	--	165 3.44	150 4.23	53 0.85	--	--	--	--	--	--
5-17-65	69	7.4	1376	115 5.74	17 1.40	117 5.09	62 1.59	0	273 4.47	189 3.93	152 4.29	63 1.02	0.7	0.30	--	860 850	357	--
8- 5-65	--	7.2	1477	--	--	--	--	--	--	234 4.87	186 5.25	65 1.05	--	--	--	--	--	--



ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent				Mineral constituents in parts per million							
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	Total Dissolved Solids as Computed CaCO <sub>3</sub>			
MIDDLE SANTA ANA R HYDRO SUBUNIT RIVERSIDE HYDRO SUBAREA																			
				Y01B0				Y01B7				Y0100							
1S/ 5W-25R 1 S 9-20-65	--	7.4	1399	103 5.14 37	16 1.32 10	127 5.52 40	69 1.76 13	0	202 3.31 24	215 4.48 33	172 4.85 36	55 0.89 7	0.7	0.21	--	875 857	323		
1S/ 5W-25R 4 S 5-17-65	69	7.3	1002	100 4.99 49	15 1.23 12	78 3.39 33	22 0.56 6	0	283 4.64 46	107 2.23 22	87 2.45 24	50 0.81 8	0.5	0.30	--	635 599	311		
1S/ 5W-33A 2 S 2- 4-65	--	7.4	592	73 3.64 59	13 1.07 17	31 1.35 22	3 0.08 1	0	267 4.38 70	23 0.48 8	34 0.96 15	29 0.47 7	0.2	0.03	--	363 337	236		
1S/ 5W-34D 1 S 2- 4-65	--	7.5	543	77 3.84 69	7 0.58 10	24 1.04 19	3 0.08 1	0	202 3.31 59	18 0.79 14	24 0.68 12	51 0.82 15	0.3	0.02	--	354 324	221		
9-13-65	--	7.7	528	77 3.84 70	8 0.66 12	21 0.91 17	2 0.05 1	0	196 3.21 59	36 0.75 14	25 0.71 13	49 0.79 14	0.3	0.01	--	330 315	225		
1S/ 5W-35G 1 S 3-18-65	66	8.0	435	--	--	--	--	--	--	24 0.50	8 0.23	23 0.37	--	--	--	--	--		
5-19-65	68	7.7	439	63 3.14 70	8 0.66 15	15 0.65 14	2 0.05 1	0	205 3.36 74	30 0.62 14	9 0.25 5	20 0.32 7	0.4	0.01	--	294 248	190		
8- 6-65	69	7.8	442	--	--	--	--	--	--	26 0.54	9 0.25	24 0.39	--	--	--	--	--		

TABLE E-1

ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent		mineral constituents per million				Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Barium	Silica	TDSS	Evaporite hardness as CaCO <sub>3</sub>	Evaporite hardness as CaCO <sub>3</sub>
Date sampled				Co	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>	Computed	as CaCO <sub>3</sub>	as CaCO <sub>3</sub>
MIDDLE SANTA ANA RIVER SUBUNIT																		
RIVERSIDE HYDRO SUBAREA																		
1S/ 5W-36A 1 S 12- 3-64	--	7.8	1364	--	--	--	--	--	--	--	139	150	42	--	--	--	--	--
1S/ 5W-36B 6 S 10- 2-64	--	7.4	1309	141 7.04 50	20 1.64 12	110 4.78 34	24 0.61 4	0	373 6.11 44	168 3.50 25	128 3.61 26	36 0.58 4	0.7	0.41	22	840	434	434
3- 9-65	--	7.5	1280	126 6.29 49	17 1.40 11	109 4.74 37	19 0.49 4	0	373 6.11 47	143 2.91 2	126 3.55 27	28 0.45 3	0.7	0.31	--	781	385	385
3-18-65	--	7.5	1265	--	--	--	--	--	--	141 2.94	129 3.64	28 0.45	--	--	--	752	--	--
5-17-65	--	7.3	1326	133 6.64 49	19 1.56 11	109 4.74 55	28 0.72 5	0	372 6.10 45	157 3.27 24	135 3.81 28	26 0.42 3	0.7	0.34	--	838	410	410
8- 4-65	--	7.2	1218	--	--	--	--	--	--	153 3.19	114 3.21	41 0.66	--	--	--	791	--	--
9-20-65	--	7.2	1276	131 6.54 49	20 1.64 12	102 4.43 33	30 0.77 6	0	368 6.03 45	173 3.60 27	113 3.19 24	36 0.58 4	0.8	0.02	--	720	409	409
1S/ 5W-36F 1 S 2- 4-65	--	7.3	843	104 5.19 55	22 1.81 19	52 2.26 24	4 0.10 1	0	365 5.98 66	50 1.04 11	57 1.61 18	30 0.48 5	0.3	0.44	--	646	350	350

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					Mineral constituents in parts per million									
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Flu- oride F	Boron B	Sili- ca SiO <sub>2</sub>	Total Evap Resid- ue Evap Resid- ue as CaCO <sub>3</sub>		
MIDDLE SANTA ANA R HYDRO SUBUNIT Y0180																		
RIVERSIDE HYDRO SUBAREA Y0187																		
1S/ 5W-36F 1 S 9-13-65	--	7.6	812	95 4.74 51	25 2.06 22	56 2.43 26	4 0.10 1	0	381 6.24 70	43 0.90 10	52 1.47 16	22 0.35 4	0.5	0.50	--	496 485	340	
2S/ 4W- 5C 1 S 10- 1-64	69	7.4	1092	--	--	--	--	--	--	--	99 2.79	76 1.23	--	--	--	--	--	
5-17-65	68	7.4	969	98 4.89 51	20 1.64 17	70 3.04 31	4 0.10 1	0	273 4.47 46	71 1.65 15	92 2.59 27	74 1.19 12	1.1	0.08	--	580 564	327	
8- 9-65	72	7.3	974	--	--	--	--	--	--	68 1.42	95 2.68	78 1.26	--	--	--	--	--	
9-13-65	--	7.4	993	105 5.24 51	24 1.97 19	70 3.04 29	4 0.10 1	0	291 4.77 46	68 1.42 14	100 2.82 27	80 1.29 13	1.0	0.12	--	641 595	361	
2S/ 4W- 6A 1 S 2- 4-65	--	7.2	896	99 4.94 56	19 1.56 18	43 1.87 22	4 0.10 1	0	277 4.54 55	72 1.50 18	63 1.78 21	30 0.48 6	0.6	0.12	--	496 467	325	
9-13-65	--	7.4	101	119 5.94 54	24 1.97 18	67 2.91 27	5 0.13 1	0	345 5.65 52	121 2.52 23	75 2.12 19	39 0.63 6	0.8	0.11	--	664 621	396	
2S/ 4W- 6K ? S 10- 1-64	--	7.4	1278	--	--	--	--	--	--	--	141 3.98	94 1.52	--	--	--	--	--	

**TABLE E-1**  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent reactance value				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	T.D.S. Evap 180°C Evap 105°C Computed Calc 3	
MIDDLE SANTA ANA R HYDRO SUBUNIT Y0180																	
RIVERSIDE HYDRO SUBAREA Y0187																	
2S/ 4W- 6N 2 S 3-19-65	62	7.4	1413	--	--	--	--	--	--	150 3.12	146 4.12	106 1.71	--	--	--	--	--
2S/ 4W- 6Q 2 S 10- 1-64	--	7.3	1450	--	--	--	--	--	--	--	122 3.44	41 0.66	--	--	--	--	--
3-19-65	--	7.2	1362	--	--	--	--	--	--	265 5.52	106 2.79	31 0.50	--	--	--	--	--
5-19-65	--	7.4	1395	152 7.58 50	31 2.55 17	110 4.78 32	4 0.10 1	0	349 5.72 38	267 5.56 37	109 3.07 21	34 0.55 4	0.6	0.31	--	878 880	507
8- 9-65	65	7.3	1414	--	--	--	--	--	--	294 6.12	112 3.16	50 0.81	--	--	--	--	--
2S/ 4W- 6R 5 S 10- 1-64	67	7.3	847	--	--	--	--	--	--	--	71 2.00	21 0.52	--	--	--	--	--
3-19-65	66	7.5	906	--	--	--	--	--	--	82 1.71	76 2.14	45 0.73	--	--	--	--	--
5-19-65	67	7.2	994	116 5.79 57	22 1.81 18	56 2.43 24	5 0.13 1	0	283 4.64 46	96 2.00 20	85 2.40 24	68 1.10 11	0.6	0.11	--	616 588	380

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlor- ide Cl	Ni- trate NO <sub>3</sub>	Free fluor- ide F	Boron B	Silica SiO <sub>2</sub>	Total Evap Residue at 180°C Computed	
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0																	
RIVERSIDE HYDRO SUBAREA Y01B7																	
2S/ 4W-33R 2 S 3-26-65	58	7.3	787	48 2.40	22 1.81	69 3.00	0.10	4 1	0 42	183 3.00	38 0.79	80 2.26	66 1.06	0.7	0.20	498 418	211
9-22-65	70	7.5	784	49 2.45	24 1.97	68 2.96	0.10	4 1	0 39	177 2.90	39 0.81	84 2.37	87 1.40	0.7	0.22	475 221	221
2S/ 5W- 1J 2 S 3- 9-65	--	7.6	890	74 3.69	12 0.99	96 4.17	0.10	4 1	0 47	254 4.16	97 2.02	83 2.34	20 0.32	1.0	0.41	515 512	234
9-20-65	--	8.0	755	48 2.40	13 1.07	90 3.91	0.13	5 2	0 44	203 3.33	95 1.98	79 2.23	2 0.03	0.8	0.31	430 433	174
2S/ 5W- 1Q 2 S 10- 2-64	--	7.6	870	74 3.69	15 1.23	90 3.91	0.13	5 1	0 45	244 4.00	99 2.06	79 2.23	34 0.55	0.9	0.44	530 535	246
2S/ 5W- 2P 1 S 6-25-65	--	8.3	680	96 4.79	12 0.99	42 1.83	0.15	6 2	25 11	264 4.33	54 1.12	23 0.65	41.5 0.67	0.2	0.08	496 430	289
2S/ 5W-10C 1 S 10- 7-64	--	7.4	920	82 4.09	15 1.23	86 3.74	0.15	6 2	0 77	427 7.00	50 1.04	28 0.79	14 0.23	0.8	--	567 492	266
3- 8-65	--	7.6	806	77 3.44	16 1.32	80 3.48	0.08	3 1	0 72	383 6.28	64 1.33	27 0.76	19 0.31	0.7	0.11	509 475	258



TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					Mineral constituents in parts per million								
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fu- sile F	Bar- ite Ba	Sul- fo- S <sub>2</sub> O <sub>3</sub>	TDS Evap Residue as CaCO <sub>3</sub>	Hardness as CaCO <sub>3</sub>
Date sampled																	
MIDDLE SANTA ANA R HYDRO SUBUNIT YOLBO																	
RIVERSIDE HYDRO SUBAREA YOLB7																	
2S/ 5W-10C 2 S 3- 8-65	--	7.4	844	79 3.94	19 1.56	70 3.04	3 0.08	0	286 4.69	76 1.58	68 1.92	24 0.39	0.4	0.23	--	527	275
2S/ 5W-10C 4 S 3- 8-65	--	7.8	695	46 3.74	18 0.82	35 2.13	1 0.08	0	55 3.15	18 1.52	22 1.41	5 0.74	0.4	0.10	--	480	228
2S/ 5W-10C 5 S 10- 2-64	--	8.0	900	55 80	12 1.15	31 3.74	1 0.03	0	46 3.66	22 1.83	21 0.90	11 0.29	0.6	--	--	401	257
2S/ 5W-10F 1 S 3- 8-65	--	7.4	1177	45 114	13 1.64	42 5.04	0 0.10	0	67 4.08	20 2.79	10 2.62	3 0.39	0.5	0.10	--	500	367
2S/ 5W-10G 3 S 3- 8-65	--	7.3	910	46 106	13 1.23	40 2.87	1 0.08	0	54 3.14	22 1.71	21 2.09	3 0.45	0.5	0.20	--	706	326
2S/ 5W-11A 1 S 10- 6-64	68	7.3	825	--	--	--	--	--	--	--	72 2.03	34 0.55	--	--	--	529	--
3-26-65	--	7.4	951	--	--	--	--	--	--	125 2.60	77 2.17	38 0.61	--	--	--	--	--
4- 1-65	--	7.1	954	--	--	--	--	--	--	125 2.60	75 2.12	34 0.55	--	--	--	--	--

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million reactance value				Mineral constituents in parts per million			
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlor- ide Cl	Ni- trate NO <sub>3</sub>	Fer- ride Fe	Silica SiO <sub>2</sub>	Total Hardness as CaCO <sub>3</sub>
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0															
RIVERSIDE HYDRO SUBAREA Y01B7															
25/ SW-11A 1 5 5-19-65	68	7.6	884	101 5.04 56	16 1.32 15	58 2.52 28	4 0.10 1	0	259 4.25 47	112 2.33 26	68 1.92 21	34 0.55 6	0.3	0.22	590 571
8-10-65	70	7.2	841	--	--	--	--	--	--	125 2.60	70 1.97	46 0.74	--	--	--
25/ SW-11K 2 12- 3-64	68	6.9	989	--	--	--	--	--	--	219 4.56	72 2.03	8 0.13	--	--	--
12- 3-64	68	6.7	961	--	--	--	--	--	--	192 4.00	71 2.00	16 0.26	--	--	--
12- 3-64	67	6.8	980	--	--	--	--	--	--	207 4.31	71 2.00	14 0.23	--	--	--
12- 3-64	68	6.7	1008	--	--	--	--	--	--	237 4.93	71 2.00	5 0.08	--	--	--
12- 3-64	67	6.7	1031	--	--	--	--	--	--	248 5.16	71 2.00	1 0.02	--	--	--
3- 5-65	--	6.6	1141	--	--	--	--	--	--	314 6.54	76 2.14	1 0.02	--	--	--
SANTA ANA RIVER HYDRO UNIT Y0100															

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					Mineral constituents in parts per million									
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	Total dissolved solids CaCO <sub>3</sub>		
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0																		
RIVERSIDE HYDRO SUBAREA Y01B7																		
SANTA ANA RIVER HYDRO UNIT Y0100																		
2S/ 5W-11K 2 S 3- 5-65	--	7.0	1058	--	--	--	--	--	--	247 5.14	76 2.14	5 0.08	--	--	--	--	--	
3- 5-65	--	7.0	1043	--	--	--	--	--	--	247 5.14	78 2.20	6 0.10	--	--	--	--	--	
3- 5-65	--	6.9	1076	--	--	--	--	--	--	276 5.75	78 2.20	1 0.02	--	--	--	--	--	
3- 5-65	--	7.1	1065	--	--	--	--	--	--	257 5.35	80 2.26	0	--	--	--	--	--	
6- 3-65	65	6.7	1274	160 7.98 57	31 2.55 18	79 3.43 24	6 0.15 1	0	212 3.47 24	401 8.35 59	75 2.12 15	14 0.23 2	0.5	0.40	--	920 871 527		
6- 3-65	65	6.7	1245	157 7.83 57	31 2.55 19	74 3.22 23	6 0.15 1	0	215 3.52 26	380 7.91 57	75 2.12 15	15 0.24 2	0.5	0.38	--	900 845 519		
6- 3-65	63	6.7	1280	163 8.13 57	34 2.80 20	72 3.13 22	6 0.15 1	0	212 3.47 24	403 8.39 59	77 2.17 15	13 0.21 1	0.5	0.36	--	930 873 547		
6- 3-65	65	6.7	1344	177 8.83 58	37 3.04 20	74 3.22 21	7 0.18 1	0	207 3.39 22	464 9.66 64	73 2.06 14	2 0.03	0.5	0.36	--	1000 937 594		

ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million									
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	Total dissolved solids as CaCO <sub>3</sub>	
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0																	
RIVERSIDE HYDRO SUBAREA Y01B7																	
25/ 5W-11K 2 S 6- 3-65	68	6.9	1267	157 7.83	35 2.88	73 3.17	7 0.18	0	205 3.36	418 8.70	72 2.03	1 0.02	0.5	0.40	--	915 865	536
8- 6-65	67	6.8	1144	--	--	--	--	--	--	332 6.91	69 1.95	12 0.19	--	--	--	--	--
8- 6-65	67	6.8	1147	--	--	--	--	--	--	334 6.95	70 1.97	11 0.18	--	--	--	--	--
8- 6-65	68	7.8	1149	--	--	--	--	--	--	329 6.85	71 2.00	7 0.11	--	--	--	--	--
25/ 5W-11M 1 S 10- 5-64	--	7.5	594	--	--	--	--	--	--	--	20 0.56	31 0.50	--	--	--	--	--
3-17-65	--	7.5	671	--	--	--	--	--	--	78 1.62	24 0.68	38 0.61	--	--	--	--	--
5-20-65	--	7.9	685	86 4.29	14 1.15	36 1.57	3 0.08	0	251 4.11	80 1.67	27 0.76	34 0.55	0.4	0.03	--	444 404	272
8- 9-65	70	7.4	666	61 --	16 --	22 --	1 --	--	58 --	24 115	11 34	8 6	--	--	--	--	--

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent			Mineral constituents in parts per million						
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlor- ide Cl	Ni- trate NO <sub>3</sub>	Fluor- ide F	Boron B	Sili- ca SiO <sub>2</sub>	T.D.S. Evap. 180°C Evap. 105°C as Computed CaCO <sub>3</sub>	
MIDDLE SANTA ANA R. HYDRO SUBUNIT Y0180 RIVERSIDE HYDRO SUBAREA Y0187																	
SANTA ANA RIVER HYDRO UNIT Y0100																	
2S/ 5W-12B 2 S 10- 1-64	--	7.2	1111	--	--	--	--	--	--	--	108 3.05	37 0.60	--	--	--	--	--
3-17-65	--	7.3	1266	--	--	--	--	--	--	238 4.96	128 3.61	38 0.61	--	--	--	--	--
5-19-65	--	7.4	1279	141 7.04 52	27 2.27 17	93 4.04 30	6 0.15 1	0	273 4.47 34	233 4.55 37	121 3.41 26	31 0.50 4	0.7	0.29	--	910 463 787	--
8- 5-65	--	7.2	1092	--	--	--	--	--	--	177 3.69	102 2.86	35 0.56	--	--	--	--	--
2S/ 5W-12C 1 S 10- 1-64	--	7.1	864	--	--	--	--	--	--	--	81 2.28	41 0.66	--	--	--	--	--
10- 2-64	--	7.8	894	84 4.19 45	20 1.64 18	78 3.39 36	5 0.13 1	0	256 4.20 45	100 2.08 22	84 2.37 25	42 0.68 7	0.5	0.39	21	580 292 561	--
3- 9-65	--	7.4	895	82 4.09 45	14 1.15 13	85 3.70 41	5 0.13 1	0	253 4.15 47	94 1.96 22	81 2.28 26	31 0.50 6	0.6	0.41	--	546 517	--
3-17-65	64	7.2	874	--	--	--	--	--	--	90 1.87	78 2.20	37 0.60	--	--	--	--	--



TABLE E-1

ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent				Mineral constituents in parts per million					
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boride B	Silica SiO <sub>2</sub>	Total Evaporated Evap 105°C Evap 105°C Computed	
MIDDLE SANTA ANA RIVER HYDRO SUBUNIT Y0180																	
RIVERSIDE HYDRO SUBAREA Y0187																	
2S/ 5W-12C 1 S 5-19-65	--	7.4	895	82 4.09 45	15 1.23 14	82 3.57 40	5 0.13 1	0	256 4.20 47	98 2.04 23	80 2.26 25	28 0.45 5	0.6	0.37	--	558 517	266
8-10-65	--	7.3	870	--	--	--	--	--	--	96 2.00	79 2.23	21 0.44	--	--	--	--	--
9-25-65	--	7.3	867	77 3.84 43	16 1.32 15	82 3.57 40	5 0.13 1	0	263 4.31 49	92 1.92 22	81 2.28 26	21 0.34 4	0.5	0.44	--	520 504	258
2S/ 5W-12E 1 S 10- 1-64	--	7.8	310	--	--	--	--	--	--	--	7 0.20	4 0.06	--	--	--	--	--
3-17-65	--	8.2	296	--	--	--	--	--	--	13 0.27	6 0.17	2 0.03	--	--	--	--	--
5-19-65	--	8.1	322	46 2.30 69	5 0.41 12	13 0.57 17	2 0.05 2	0	173 2.84 85	15 0.31 9	5 0.14 4	3 0.05 1	0.3	0.01	--	215 174	136
8- 5-65	--	7.9	322	--	--	--	--	--	--	14 0.29	6 0.17	4 0.06	--	--	--	--	--
2S/ 5W-12E 2 S 10- 1-64	--	7.1	1092	--	--	--	--	--	--	--	106 2.99	37 0.60	--	--	--	--	--

TABLE E-1

ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents percent					Mineral constituents in parts per million				
				Ca	Mg	Na	Potas- sium	Carbon- ate	Bicarbonate	Sulfate	Chloride	Nitrate	Ferric oxide	Boron	Silica	TDS Extrapolated Extrapolated as Computed	Total hardness as CaCO <sub>3</sub>	
Date sampled																		
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0 RIVERSIDE HYDRO SUBAREA Y01B7																		
SANTA ANA RIVER HYDRO UNIT Y0100																		
2S/ 5W-12E 2 S 3-17-65	--	7.1	1061	--	--	--	--	--	--	159 3.31	99 2.79	40 0.65	--	--	--	--	--	
5-19-65	--	7.7	1075	123 6.14	25 2.06	66 2.87	5 0.13	0	261 4.28	163 3.39	96 2.71	38 0.61	0.6	0.19	--	756 645	410	
8- 5-65	--	7.3	1052	--	--	--	--	--	--	161 3.35	95 2.68	35 0.56	--	--	--	--	--	
2S/ 5W-14D 1 S 9-30-65	70	8.2	774	59 2.94	10 0.82	81 3.52	2 0.05	0	150 2.46	117 2.44	82 2.31	9 0.15	1.3	0.54	--	456 436	188	
2S/ 5W-14G 2 S 10- 5-64	--	7.5	519	--	--	--	--	--	--	--	26 0.73	4 0.06	--	--	--	--	--	
3-17-65	--	7.4	626	--	--	--	--	--	--	102 2.12	33 0.93	6 0.10	--	--	--	--	--	
5-20-65	69	7.5	673	87 4.34	13 1.07	33 1.43	3 0.08	0	211 3.46	117 2.44	34 0.96	6 0.10	0.4	0.11	--	432 397	271	
8- 9-65	70	7.4	669	--	--	--	--	--	--	94 1.96	20 0.56	22 0.35	--	--	--	--	--	

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent					Mineral constituents in parts per million				
				Sodium CO	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Sulfide S	Fluoride F	Iron Fe	Copper Cu	Lead Pb	Other Evol. O.S.C.
Date sampled																		
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0																		
RIVERSIDE HYDRO SUBAREA Y01B7																		
25/ 5W-14G 2 S 8-27-65	--	7.5	568	75 3.74 65	9 0.74 13	28 1.22 21	2 0.05 1	0	204 3.34 56	81 1.69 28	30 0.85 14	4 0.06 1		0.4	0.05	--	339	224
25/ 5W-16A 3 S 6-25-65	--	7.9	1020	84 4.19 42	20 1.64 17	90 3.91 40	6 0.15 2	--	312 5.11 52	110 2.29 23	76 2.14 22	23 0.37 4		0.3	0.14	--	623	292
25/ 5W-20R 1 S 10- 5-64	7.1	7.5	618	--	--	--	--	--	--	--	22 0.62	24 0.39		--	--	--	563	
3-18-65	--	7.4	636	--	--	--	--	--	--	81 1.69	20 0.56	23 0.37		--	--	--		
5-24-65	6.8	7.6	711	87 4.34 62	13 1.07 15	35 1.52 22	3 0.08 1	0	254 4.16 60	90 1.87 27	19 0.54 8	22 0.35 5		0.4	0.02	--	400	271
8- 9-65	6.9	7.5	679	--	--	--	--	--	--	78 1.62	30 0.85	38 0.61		--	--	--	374	
25/ 5W-21J 1 S 10- 5-64	7.1	7.2	902	--	--	--	--	--	--	--	50 1.41	4 0.06		--	--	--		
3-18-65	--	7.8	545	--	--	--	--	--	--	74 1.54	27 0.76	4 0.06		--	--	--		

TABLE E-1

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TABLE C  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million reactance value				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlor- ide Cl	Ni- trate NO <sub>3</sub>	Flu- ride F	Boron B	Sili- ca SiO <sub>2</sub>	Total Dissolved Solids Computed Total	
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0																	
RIVERSIDE HYDRO SUBAREA Y01B7																	
2S/ 5W-29E 4 S	62	7.7	556	56	12	40	6	0	232	41	34	1	0.5	0.20	--	340	189
5-24-65				2.79	0.99	1.74	0.15		3.80	0.85	0.96	0.02					
				49	17	31	3		67	15	17						305
8-10-65	65	7.4	556	--	--	--	--	--	--	16	31	14	--	--	--		
										0.33	0.87	0.23					



TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent			million reactance value			Mineral constituents in parts per million							
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlor- ide Cl	Ni- trate NO <sub>3</sub>	Fluor- ide F	Borax B	Sil- ica SiO <sub>2</sub>	TDS Evap Res- idue as Computed Col. 3					
LAKE MATHEWS HYDRO SUBUNIT				Y01C0				SANTA ANA RIVER HYDRO UNIT											Y0100		
BEDFORD HYDRO SUBAREA				Y01C2																	
4S/ 6W-21J 1 S 3-20-65	--	7.0	1274	151 7.53 54	39 3.21 23	72 3.13 22	0.05	2	0	323 5.29 39	254 5.29 39	77 2.17 16	0.6	--	51 0.82	0.10	939 806	537			
4S/ 6W-22D 1 S 3-20-65	--	7.2	1425	186 9.28 57	43 3.54 22	80 3.48 21	0.05	2	0	310 5.08 31	349 7.27 45	98 2.76 17	0.7	--	64 1.03 6	0.14	1070 975	642			

TABLE C-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million reactance value					Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	Evaporite Residue	Hardness as CaCO <sub>3</sub>	
Date sampled																		
SANTA ANA RIVER HYDRO UNIT Y0100																		
COLTON-RIALTO HYDRO SUBUNIT Y0100																		
LOWER LITTLE HYDRO SUBAREA Y0102																		
1N/ 5W- 6K 2 S 9-28-65	--	7.4	366	49 2.45 63	11 0.90 23	11 0.48 12	3 0.08 2	0	176 2.88 74	36 0.75 19	5 0.14 4	6 0.10 3	0.4	0.01	--	272 208	168	
COLTON-RIALTO HYDRO SUBAREA Y0104																		
1S/ 4W-18E 1 S 2- 4-65	--	7.7	473	70 3.49 71	8 0.66 13	16 0.70 14	2 0.05 1	0	196 3.21 66	36 0.75 15	8 0.23 5	42 0.68 14	0.3	0	--	311 279	208	
9-13-65	--	7.9	358	49 2.45 63	9 0.74 19	15 0.65 17	2 0.05 1	0	190 3.11 80	19 0.40 10	6 0.17 4	13 0.21 5	0.4	0	--	223 207	160	
1S/ 4W-21L 3 S 3-19-65	--	7.4	675	--	--	--	--	--	--	86 1.79	35 0.99	5 0.08	--	--	--	--		
5-1R-65	74	7.6	684	76 3.79 53	12 0.99 14	52 2.26 32	4 0.10 1	0	250 4.10 58	85 1.77 25	41 1.16 16	6 0.10 1	0.9	0.14	--	440 400	239	
8- 3-65	--	7.6	700	--	--	--	--	--	--	85 1.77	45 1.27	8 0.13	--	--	--	--		
1S/ 4W-21R 1 S 10- 6-64	--	7.6	855	--	--	--	--	--	--	--	69 1.95	18 0.29	--	--	--	--		

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				Mineral constituents in parts per million					
				Calcium	Magne-sium	Sodium	Potas-sium	Carbon-ate	Bicar-bonate	Sulfate	Chlo-ride	Ni-trate	Fluo-ride	Boreon	Sol- ta	TD <sub>50</sub> Equiv. to CaCO <sub>3</sub>	Hardness as CaCO <sub>3</sub>
Date sampled				Co	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SO <sub>2</sub>	Computed	CaCO <sub>3</sub>
COLTON-RIALTO HYDRO SUBUNIT Y01D0																	
COLTON-RIALTO HYDRO SUBAREA Y01D4																	
SANTA ANA RIVER HYDRO UNIT Y0100																	
1S/ 4W-21R 1 S 2- 4-65	--	7.5	864	91 4.54 49	28 2.30 25	56 2.43 26	3 0.08 1	0	321 5.26 57	78 1.62 17	78 2.20 24	13 0.21 2	0.8	0.33	--	498 506	342
3-18-65	--	7.3	878	--	--	--	--	--	--	83 1.73	73 2.06	12 0.19	--	--	--	--	--
5-18-65	--	7.4	866	91 4.54 51	25 2.06 23	52 2.26 25	3 0.08 1	0	290 4.75 54	85 1.77 20	73 2.06 23	16 0.26 3	0.7	0.35	--	601 489	330
8- 9-65	--	7.3	826	--	--	--	--	--	--	86 1.79	72 2.03	14 0.23	--	--	--	--	--
1S/ 4W-21R 3 S 6- 1-65	66	8.6	1060	21 1.05 9	8 0.66 6	216 9.39 84	3 0.08 1	22 0.73 6	520 8.52 74	0	77 2.17 19	1 0.02	0.1	0.36	--	655 604	86
8- 2-65	69	8.4	1104	--	--	--	--	--	--	0	85 2.40	0	--	--	--	--	--
1S/ 4W-21R 4 S 6- 1-65	66	8.2	578	31 1.55 27	6 0.49 8	86 3.74 64	2 0.05 1	0	273 4.47 76	29 0.60 10	30 0.85 14	0	1.4	0.41	--	355 320	102
8- 2-65	66	8.0	573	--	--	--	--	--	--	30 0.62	31 0.87	0	--	--	--	--	--

ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent					Mineral constituents in parts per million				
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fu- sile F	Bar- ium Ba	Sul- fo- ur S	Total Evap- orated Residue TDS Computed CaCO <sub>3</sub>		
COLTON-RIALTO HYDRO SUBUNIT COLTON-RIALTO HYDRO SUBAREA																		
SANTA ANA RIVER HYDRO UNIT																		
Y0100																		
Y0104																		
1S/ 4W-21R 5 S 6- 1-65	--	8.0	560	49 2.45 43	8 0.66 11	59 2.57 45	3 0.08 1	0	261 4.28 74	40 0.83 14	25 0.71 12	0	0	1.2	0.12	--	344 314	156
8- 2-65	66	8.0	563	--	--	--	--	--	--	41 0.85	26 0.73	0	0	--	--	--	--	--
1S/ 4W-21R 6 S 6- 3-65	68	10.0	434	6 0.30 8	4 0.33 9	72 3.13 82	3 0.08 2	56 1.87 46	20 0.33 8	47 0.98 24	30 0.65 21	0	0	0.7	0.28	--	265 224	32
8- 2-65	68	9.9	440	--	--	--	--	--	--	48 1.00	33 0.93	0	0	--	--	--	--	--
1S/ 4W-21R 7 S 6- 3-65	67	8.2	580	43 2.15 36	11 0.90 15	66 2.87 48	2 0.05 1	0	295 4.84 79	26 0.54 9	27 0.76 12	0	0	1.2	0.30	--	336 322	153
8- 2-65	67	8.1	575	--	--	--	--	--	--	28 0.58	28 0.79	0	0	--	--	--	--	--
1S/ 4W-28E 1 S 12- 2-64	71	7.3	1050	--	--	--	--	--	--	87 1.81	97 2.74	49 0.79	49	--	--	--	--	--
12- 2-64	69	7.2	1064	--	--	--	--	--	--	87 1.81	98 2.76	47 0.76	47	--	--	--	--	--

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				Mineral constituents in parts per million							
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Na- trate Na	Fe Sulfide Fe	Hard- ness du	IDS Evap. Resid. Evap. (100) Evap. (1000) Computed	Notes Address JCS C-113			
COLTON-RIALTO HYDRO SUBUNIT COLTON-RIALTO HYDRO SUBAREA																			
				Y0100				Y0104				Y0100							
SANTA ANA RIVER HYDRO UNIT																			
1S/ 4W-20E 1 S 12- 2-64	68	7.3	1055	--	--	--	--	--	--	87	98	47	--	--	--				
										1.81	2.76	0.76							
12- 2-64	69	7.2	1058	--	--	--	--	--	--	88	98	49	--	--	--				
										1.83	2.76	0.79							
12- 2-64	68	7.1	1053	--	--	--	--	--	--	88	97	47	--	--	--				
										1.83	2.74	0.76							
3- 4-65	--	7.7	1032	--	--	--	--	--	--	82	96	44	--	--	--				
										1.71	2.71	0.71							
5-31-65	68	6.8	1000	85	15	107	7	0	332	69	85	57	0.5	0.58	--	274			
				4.24	1.23	4.65	0.18	5.44	5.44	1.44	2.40	0.92							
				41	12	45	2	53	53	14	24	9				589			
5-31-65	67	7.8	1045	99	18	104	6	0	388	74	79	54	0.4	0.56	--	321			
				4.94	1.48	4.52	0.15	6.36	6.36	1.54	2.23	0.87							
				45	13	41	1	58	58	14	20	8				626			
5-31-65	67	7.6	1043	95	16	105	6	0	373	72	81	55	0.4	0.56	--	303			
				4.74	1.32	4.57	0.15	6.11	6.11	1.50	2.28	0.89							
				44	12	42	1	57	57	14	21	8				614			
8- 3-65	69	7.0	931	--	--	--	--	--	--	68	71	45	--	--	--				
										1.42	2.00	0.73							



ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million				Mineral constituents in parts per million				
				Calcium mg Ca	Magnesium mg Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	Total hardness as CaCO <sub>3</sub>
COLTON-RIALTO HYDRO SUBUNIT Y01D0																
COLTON-RIALTO HYDRO SUBAREA Y01D4																
1S/ 4W-28E 1 S 8- 3-65	67	7.0	947	--	--	--	--	--	--	67 1.39	74 2.09	45 0.73	--	--	--	--
8- 3-65	69	7.0	955	--	--	--	--	--	--	66 1.37	71 2.00	45 0.73	--	--	--	--
8- 3-65	69	6.9	946	--	--	--	--	--	--	67 1.39	71 2.00	45 0.73	--	--	--	--
8- 3-65	69	6.9	940	--	--	--	--	--	--	66 1.37	72 2.03	46 0.74	--	--	--	--
1S/ 4W-28G 2 S 3-19-65	--	7.3	1002	--	--	--	--	--	--	128 2.66	59 1.66	16 0.26	--	--	--	--
5-17-65	--	7.4	1016	22 4.69 42	28 2.30 21	90 3.91 36	3 0.08 1	0	378 6.20 57	133 2.77 25	60 1.69 15	16 0.26 2	0.9	0.26	--	345 610 609
8- 9-65	--	7.2	1008	--	--	--	--	--	--	28 0.58	62 1.75	16 0.26	--	--	--	--
1S/ 4W-28R 3 S 2- 4-65	--	7.7	634	62 3.09 44	10 0.82 12	69 3.00 43	3 0.08 1	0	246 4.03 58	60 1.25 18	47 1.33 19	21 0.34 5	0.9	0.11	--	417 394 196

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million				Mineral constituents in parts per million				
				Ca + Mg	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	Total Hardness as CaCO <sub>3</sub>
Date sampled				Co	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>	as CaCO <sub>3</sub>
COLTON-RIALTO HYDRO SUBUNIT Y0100																
COLTON-RIALTO HYDRO SUBAREA Y01D4																
15/ 4W-28R 3 S 9-13-65	--	7.9	615	57 2.84 44	10 0.82 13	62 2.70 42	3 0.08 1	0	226 3.70 58	52 1.08 17	45 1.27 20	19 0.31 5	0.8	0.11	--	356 183
15/ 4W-29A 1 S 5-17-65	69	7.9	376	32 1.60 42	4 0.33 9	42 1.83 48	2 0.05 1	0	173 2.84 74	26 0.54 14	14 0.39 10	5 0.08 2	0.4	0.04	--	210 97
15/ 4W-29A 2 S 3-19-65	68	7.8	384	--	--	--	--	--	--	26 0.54	13 0.37	6 0.10	--	--	--	210
15/ 5W-12N 1 S 2- 4-65	--	7.6	381	58 2.89 73	6 0.49 12	12 0.52 13	2 0.05 1	0	189 3.10 78	19 0.40 10	6 0.17 4	18 0.29 7	0.3	0	--	247 169
9-13-65	--	7.7	382	59 2.94 71	7 0.58 14	13 0.57 14	2 0.05 1	0	193 3.16 78	19 0.40 10	7 0.20 5	17 0.27 7	0.4	0	--	244 176
RECHE HYDRO SUBAREA Y01D5																
25/ 3W-18D 1 S 5- 4-65	66	7.7	396	25 1.25 33	8 0.66 17	42 1.83 48	2 0.05 1	0	133 2.18 57	13 0.27 7	39 1.10 29	16 0.26 7	0.7	0	--	279 96
25/ 3W-20D 4 S 5- 4-65	64	7.4	299	13 0.65 23	7 0.58 20	36 1.57 55	3 0.08 3	0	121 1.98 69	7 0.15 5	26 0.73 25	1.5 0.02 1	1.2	0.03	--	195 154

ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per percent			million reactivity value			Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	Iron Fe	Other Computed		
COLTON-RIALTO HYDRO SUBUNIT				SANTA ANA RIVER HYDRO UNIT										Y0100					
RECHE HYDRO SUBAREA				Y01D0										Y01D5					
2S/ 3W-20R 3 S 5- 4-65	64	7.4	299	13 0.65 23	7 0.58 20	36 1.57 55	3 0.08 3	0	121 1.98 69	7 0.15 5	26 0.73 25	1.5 0.02 1	1.2	0.03	--	195 154	62		
2S/ 4W-12M 1 S 5- 4-65	68	7.5	441	34 1.70 41	9 0.74 18	39 1.70 41	2 0.05 1	--	151 2.47 58	23 0.48 11	44 1.24 29	2.5 0.04 1	0.9	0.03	--	265 229	122		
2S/ 4W-14D 1 S 3-26-65	58	8.3	624	21 1.05 19	3 0.25 4	98 4.26 76	1 0.03 1	8 0.27 5	78 1.28 23	85 1.77 31	83 2.34 41	0	1.9	0.65	--	394 340	65		

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in						parts per million equivalents per percent				Mineral constituents in parts per million				
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	TDS Extrap 105°C Extrap 105°C Computed		
UPPER SANTA ANA HYDRO SUBUNIT																		
BUNKER HILL HYDRO SUBAREA																		
Y01E0																		
SANTA ANA RIVER HYDRO UNIT																		
Y0100																		
Y01E2																		
1S/ 3W- 1H 1 S 6-24-65	66	8.1	385	49 2.45	17 1.40	36 1.57	0.08	3	0	221 3.62	34 0.71	27 0.76	8.2 0.13	0	0	--	292	193
				45	25	29	1			69	14	15	2				284	
1S/ 3W- 3Q 1 S 6-24-65	67	7.1	540	63 3.14	11 0.90	39 1.70	0.10	4	0	238 3.90	36 0.75	17 0.48	41.1 0.66	0	0.03	--	356	202
				54	15	29	2			67	13	8	11				328	
1S/ 3W- 8N 2 S 8-24-65	61	7.5	818	96 4.79	21 1.73	41 1.78	4	4	0	294 4.82	46 0.96	79 2.23	27 0.44	0.4	0.53	--	472	326
				57	21	21	1			57	11	26	5				459	
A-24-65	61	7.4	845	98 4.89	21 1.73	42 1.83	4	4	0	300 4.92	45 0.94	81 2.28	27 0.44	0.3	0.56	--	489	331
				57	20	21	1			57	11	27	5				466	
8-24-65	--	7.6	769	90 4.49	18 1.48	39 1.70	4	4	0	279 4.57	42 0.87	72 2.03	25 0.40	0.4	0.51	--	439	299
				58	19	22	1			58	11	26	5				428	
8-24-65	61	7.3	812	98 4.89	18 1.48	40 1.74	4	4	0	295 4.84	43 0.90	77 2.17	26 0.42	0.4	0.55	--	468	319
				60	18	21	1			58	11	26	5				452	
1S/ 3W- 8N 3 S 8-25-65	--	7.6	870	90 4.49	35 2.88	32 1.39	4	4	0	288 4.72	49 1.02	92 2.59	25 0.40	0.4	0.59	--	527	369
				51	33	16	1			54	12	30	5				470	
8-25-65	--	7.5	871	93 4.64	32 2.63	32 1.39	4	4	0	282 4.62	50 1.04	92 2.59	27 0.44	0.4	0.64	--	537	364
				53	30	16	1			53	12	30	5				470	

ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Flu- oride F	Boron B	Sili- ca SiO <sub>2</sub>	Iron Fe	Cu- per Cu	Other Trace Elements
UPPER SANTA ANA HYDRO SUBUNIT																		
HUNKER HILL HYDRO SUBAREA																		
SANTA ANA RIVER HYDRO UNIT																		
Y01E0																		
Y01E2																		
Y0100																		
1S/ 3W- 8N 3 S 8-25-65	--	7.8	909	97 4.84 52	36 2.96 32	32 1.39 15	4 0.10 1	4 0 0	304 4.98 55	50 1.04 11	96 2.71 30	25 0.40 4	0.3	0.65	--	543 490		390
8-25-65	--	7.5	909	101 5.04 55	33 2.71 29	32 1.39 15	4 0.10 1	4 0 0	304 4.98 54	51 1.06 12	95 2.68 29	28 0.45 5	0.4	0.60	--	542 494		388
8-25-65	--	7.6	887	102 5.09 56	30 2.47 27	32 1.39 15	4 0.10 1	4 0 0	312 5.11 56	50 1.04 11	91 2.57 28	26 0.42 5	0.4	0.56	--	532 489		378
1S/ 3W- 9E 2 S 3- 9-65	--	7.6	242	25 1.25 51	7 0.58 24	13 0.57 23	2 0.05 2	0 1.88 80	115 1.88 80	8 0.17 7	8 0.23 10	5 0.08 3	0.4	0.08	--	140 125		92
6-24-65	66	8.1	310	50 2.50 62	6 0.49 12	22 0.96 24	4 0.10 2	0 3.47 87	212 3.47 87	11 0.23 6	7 0.20 5	7 6.2 0.10	0.3	--	--	208 211		150
1S/ 3W-14P 2 S 6-18-65	71	7.9	645	91 4.54 71	14 1.15 18	15 0.65 10	2 0.05 1	0 3.20 52	195 3.20 52	65 1.35 22	18 0.51 8	70 1.13 18	0.6	0	--	438 371		285
1S/ 3W-14R 1 S 6-18-65	69	8.0	497	67 3.34 68	12 0.99 20	12 0.52 11	3 0.08 2	0 2.88 57	176 2.88 57	43 0.90 18	13 0.37 7	54 0.87 17	0.6	0	--	311 291		217
1S/ 3W-15A 1 S 6-18-65	--	7.7	534	77 3.84 66	14 1.15 20	17 0.74 13	2 0.05 1	0 5.26 90	321 5.26 90	12 0.25 4	10 0.28 5	2 0.03 1	0.2	0	--	293 292		250



TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				Mineral constituents in parts per million							
				Calcium Co	Magne-sium Mg	Sodium Na	Potas-sium K	Carbon-ate CO <sub>3</sub>	Bicar-bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo-ride Cl	Ni-trate NO <sub>3</sub>	Fluo-ride F	Boron B	Sili-ca SiO <sub>2</sub>	I.O.S. Expt. 180°C Expt. 105°C Computed	Vis. hardness at 105°C		
UPPER SANTA ANA HYDRO SUBUNIT BUNKER HILL HYDRO SUBAREA																			
YO100				SANTA ANA RIVER HYDRO UNIT														YO100	
YO100				YO100														YO100	
1S/ 3W-15M 3 S 6-18-65	62	7.8	371	48 2.40 65	8 0.66 18	13 0.57 15	2 0.05 1	0	145 2.38 64	28 0.58 16	10 0.28 8	30 0.48 13	0.4	0	--	222 211	153		
1S/ 3W-16J 1 S 6-18-65	63	7.7	436	56 2.79 64	11 0.90 21	14 0.61 14	2 0.05 1	0	156 2.56 59	35 0.73 17	12 0.34 8	42 0.68 16	0.3	0	--	264 249	185		
1S/ 3W-17C 3 S 3- 9-65	--	7.8	720	105 5.24 69	18 1.48 20	18 0.78 10	3 0.08 1	0	285 4.67 62	53 1.10 15	49 1.38 18	19 0.31 4	0.4	0.10	--	490 406	336		
6-18-65	--	7.5	762	108 5.39 66	20 1.64 20	24 1.04 13	4 0.10 1	0	288 4.72 59	70 1.46 18	51 1.44 18	26 0.42 5	0.4	0.16	--	450 445	352		
9-29-65	--	7.4	877	122 6.09 64	24 1.97 21	31 1.35 14	4 0.10 1	0	328 5.38 57	87 1.81 19	62 1.75 18	36 0.58 6	0.5	0.24	--	540 528	403		
1S/ 3W-17L 1 S 6-18-65	67	7.9	482	67 3.34 66	11 0.90 18	17 0.74 15	2 0.05 1	0	178 2.92 59	53 1.10 22	8 0.23 5	45 0.73 15	0.6	0.06	--	280 291	212		
1S/ 3W-18L 1 S 6-18-65	67	7.8	757	108 5.39 66	20 1.64 20	25 1.09 13	4 0.10 1	0	215 3.52 43	136 2.83 35	18 0.51 6	77 1.24 15	0.6	0.16	--	510 494	352		
1S/ 3W-19G 2 S 3- 9-65	--	8.0	477	61 3.04 61	12 0.99 20	20 0.87 18	2 0.05 1	0	190 3.11 63	43 0.90 18	11 0.31 6	36 0.58 12	0.9	0.02	--	320 279	202		

# ANALYSES OF GROUND WATER SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				Mineral constituents in parts per million							
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Silica SiO <sub>2</sub>	Iron Fe	Iron Fe	Evaporates Evap. Ions as Computed		
UPPER SANTA ANA HYDRO SUBUNIT BUNKER HILL HYDRO SUBAREA																			
YO1E0				SANTA ANA RIVER HYDRO UNIT														YO100	
YO1E2																			
1S/ 3W-19J 1 S 9-29-65	--	7.9	389	40 2.00 48	7 0.58 14	35 1.52 37	2 0.05 1	0	171 2.80 69	36 0.75 19	12 0.54 8	10 0.16 4	1.4	--	240 227	129			
1S/ 3W-20P 1 S 6-18-65	74	8.0	579	75 3.74 62	13 1.07 18	27 1.17 19	3 0.08 1	0	224 3.67 61	43 0.90 15	29 0.82 14	36 0.58 10	0.9	--	330 337	241			
1S/ 3W-20R 2 S 6-18-65	73	8.0	536	67 3.34 59	12 0.99 18	28 1.22 22	3 0.08 1	0	205 3.36 62	38 0.79 15	24 0.68 13	38 0.61 11	0.9	--	330 312	217			
1S/ 3W-28E 2 S 6-17-65	76	7.7	656	71 3.54 53	14 1.15 17	44 1.91 29	4 0.10 1	0	215 3.52 52	51 1.06 16	51 1.44 21	45 0.73 11	1.1	--	400 387	235			
1S/ 3W-28H 1 S 6-18-65	73	7.7	545	63 3.14 56	10 0.82 15	36 1.57 28	3 0.08 1	0	200 3.28 59	49 1.02 18	19 0.54 10	43 0.69 12	1.0	--	330 322	198			
1S/ 3W-28M 3 S 6-17-65	78	7.2	462	30 1.50 32	9 0.74 16	56 2.43 51	3 0.08 2	0	183 3.00 64	35 0.73 16	29 0.82 17	9 0.15 3	1.2	--	260 262	112			
1S/ 3W-31H 1 S 6-17-65	70	7.5	934	74 3.69 37	28 2.30 23	90 3.91 39	3 0.08 1	0	334 5.47 55	95 1.98 20	44 1.24 12	82 1.32 13	0.8	--	560 581	300			
1S/ 4W-3H 2 S 6-16-65	66	7.6	366	52 2.59 65	10 0.82 21	11 0.48 12	3 0.08 2	0	207 3.39 87	14 0.29 7	6 0.17 4	4 0.06 2	0.6	--	224 202	171			

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million reactance value				Mineral constituents in parts per million					
				Calcium Co	Magne-sium Mg	Sodium Na	Potas-sium K	Carbon-ate CO <sub>3</sub>	Bicar-bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo-ride Cl	Ni-trate NO <sub>3</sub>	Fluo-ride F	Boron B	Sili-ca SiO <sub>2</sub>	T.D.S. Evap. 105°C as compared CaCl <sub>2</sub>	
UPPER SANTA ANA HYDRO SUBUNIT Y01E0																	
BUNKER HILL HYDRO SUBAREA Y01E2																	
1S/ 4W-5E 5 S 6-16-65	68	7.8	492	71 3.54 66	13 1.07 20	15 0.65 12	0.10 2	4	0	234 3.84 72	51 1.06 20	8 0.23 4	0.5	0.01	--	300 231 289	
1S/ 4W-10F 1 S 6-17-65	70	7.9	357	42 2.10 57	9 0.74 20	18 0.78 21	3 0.08 2	3	0	183 3.00 81	16 0.33 9	11 0.31 8	1.4	0.19	--	208 142 193	
1S/ 4W-13E 7 S 3-25-65	--	8.0	492	--	--	--	--	--	--	--	84 1.75	15 0.42	--	--	--	220 181 239	
1S/ 4W-13G 2 S 6-17-65	62	7.8	426	56 2.79 62	10 0.82 18	18 0.78 17	3 0.08 2	3	0	198 3.25 73	26 0.54 12	17 0.48 11	0.5	0.42	--	255 189 244	
9-29-65	--	7.5	422	56 2.79 61	12 0.99 21	18 0.78 17	2 0.05 1	2	0	207 3.39 74	24 0.50 11	19 0.54 12	0.5	0.56	--	370 250 352	
1S/ 4W-13L 1 S 3- 9-65	--	7.6	580	77 3.84 65	14 1.15 19	19 0.83 14	3 0.08 1	3	0	176 2.88 50	68 1.42 24	12 0.34 6	0.4	0.02	--	360 261 372	
6-17-65	63	7.5	593	80 3.99 64	15 1.23 20	22 0.96 15	3 0.08 1	3	0	188 3.08 50	79 1.64 27	10 0.28 5	0.5	0.10	--	460 309 437	
9-29-65	--	7.6	651	94 4.69 65	18 1.48 21	22 0.96 13	3 0.08 1	3	0	207 3.39 47	99 2.06 29	14 0.39 5	0.6	0.02	--		

TABLE E-1

ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per percent			parts per million					Mineral constituents in parts per million		
				Calcium	Magne- sium Mg	Sodium	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate	Silicic acid SiO <sub>2</sub>	Chloride	Sulfide	Nitrate	Nitrogen	Fluoride	Boron	Silica	Total
Date sampled				Ca	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	SiO <sub>2</sub>	Cl	S	N	N	F	B	SiO <sub>2</sub>	Total
UPPER SANTA ANA HYDRO SUBUNIT																			
BUNKER HILL HYDRO SUBAREA																			
Y01E0																			
Y01E2																			
15/ 4W-13M 2 S 9-29-65	--	7.9	253	28 1.40 53	4 0.33 12	20 0.87 33	0.05 2	2	0	133 2.18 62	13 0.27 10	6 0.17 6	2 0.03 1	0.04	155 141	0.7	0.04	--	87
15/ 4W-13N 1 S 5-17-65	66	7.6	591	76 3.79 62	12 0.59 16	29 1.26 21	3 0.08 1	0	199 3.26 53	98 2.04 33	19 0.54 9	18 0.29 5	0.06	389 353	239	0.6	0.08	--	
6-17-65	66	7.6	589	76 3.79 62	13 1.07 17	28 1.22 20	2 0.08 1	0	203 3.33 53	102 2.12 34	18 0.51 8	17 0.27 4	0.07	340 358	249	0.7	0.04	--	
15/ 4W-13N 3 S 10- 6-64	64	7.7	563	--	--	--	--	--	--	--	--	15 0.42	48 0.77	--	--	--	--	--	
5-17-65	61	7.6	600	78 3.89 63	15 1.23 20	23 1.00 16	3 0.08 1	0	198 3.25 52	79 1.64 26	15 0.42 7	55 0.89 14	0.5	417 366	256	0.5	0.13	--	
8- 9-65	65	7.6	616	--	--	--	--	--	--	93 1.94	16 0.45	46 0.74	--	--	--	--	--	--	
15/ 4W-13R 1 S 6-18-65	--	7.8	706	92 4.59 61	16 1.32 18	35 1.52 20	3 0.08 1	0	222 3.64 48	136 2.83 37	24 0.66 9	27 0.44 6	0.8	520 443	296	0.8	0.02	--	
15/ 4W-14J 3 S 8-20-64	64	7.3	926	--	--	--	--	--	--	273 5.68	22 0.62	3.0 0.05	--	--	--	--	--	--	

TABLE E-1

ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million				Mineral constituents in parts per million				
				Calcium	Magne-sium	Sodium	Potas-sium	Carbon-ate	Bicar-bonate	Sulfate	Chlo-ride	Ni-trate	Fluo-ride	Boron	Sili-co	TDS
Date sampled				Co	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>	Evap 180°C Evap 105°C Computed
UPPER SANTA ANA HYDRO SUBUNIT																
BUNKER HILL HYDRO SUBAREA																
YO100																
SANTA ANA RIVER HYDRO UNIT																
YO102																
1S/ 4W-14J 3 S 5-17-65	68	7.4	857	123 6.14 65	23 1.89 20	31 1.35 14	5 0.13 1	0	232 3.80 41	238 4.96 53	21 0.59 6	2 0.03	0.5	0.06	--	630 558
8- 4-65	--	7.3	968	--	--	--	--	--	--	296 6.16	23 0.65	4 0.06	--	--	--	--
1S/ 4W-15M 2 S 6-17-65	80	7.7	603	68 3.39 53	8 0.66 10	51 2.22 35	3 0.09 1	0	228 3.74 59	99 2.06 32	19 0.54 8	1 0.02	1.8	0.29	--	388 363
1S/ 4W-22A 5 S 3-19-65	--	7.4	828	--	--	--	--	--	--	197 4.10	16 0.45	1 0.02	--	--	--	--
5-18-65	--	7.6	784	114 5.69 65	21 1.73 20	27 1.17 13	4 0.10 1	0	268 4.39 51	182 3.79 44	16 0.45 5	2 0.03	0.6	0.08	--	530 498
1S/ 4W-22E 1 S 3-19-65	--	7.9	505	--	--	--	--	--	--	28 0.58	46 1.30	1.0 0.02	--	--	--	--
5-18-65	78	7.9	510	30 1.50 31	4 0.33 7	70 3.04 62	1 0.03 1	0	178 2.92 60	31 0.65 13	47 1.33 27	0	2.7	0.62	--	290 274
8- 9-65	--	7.7	431	--	--	--	--	--	--	50 1.04	13 0.37	4 0.06	--	--	--	--



TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					Mineral constituents in parts per million									
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	Total hardness as CaCO <sub>3</sub>		
UPPER SANTA ANA HYDRO SUBUNIT BUNKER HILL HYDRO SUBAREA																		
Y01E0				Y01E2														
SANTA ANA RIVER HYDRO UNIT																		
Y0100																		
1S/ 4W-22L 5 S 10- 7-64	--	7.7	436	--	--	--	--	--	--	--	17 0.48	9.0 0.15	--	--	--	--	--	
3-25-65	--	7.7	458	--	--	--	--	--	--	52 1.00	14 0.39	9.0 0.15	--	--	--	--	--	
5-18-65	68	7.6	441	48 2.40 53	10 0.82 18	30 1.30 28	2 0.05 1	0 2.88 63	176	53 1.10 24	16 0.45 10	8 0.13 3	0.9	0.07	--	278 254 161	61	
1S/ 4W-23C 2 S 4- 1-65	--	8.0	370	--	--	--	--	--	--	35 0.73	19 0.54	2 0.03	--	--	--	--	--	
5-18-65	77	8.0	421	22 1.10 26	2 0.16 4	65 2.83 68	3 0.06 2	0 2.44 59	149	43 0.90 22	26 0.73 18	3 0.05 1	0.9	0.10	--	267 238 61	61	
8-10-65	--	7.8	396	--	--	--	--	--	--	39 0.81	24 0.60	2 0.03	--	--	--	--	--	
1S/ 4W-23D 2 S 3-25-65	--	8.0	312	--	--	--	--	--	--	16 0.33	8 0.23	2.0 0.03	--	--	--	--	--	
1S/ 4W-23J 1 S 8- 4-65	--	7.6	654	--	--	--	--	--	--	82 1.71	31 0.87	15 0.24	--	--	--	--	--	

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million percent reactance value				Mineral constituents in parts per million											
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	Total Hardness as CaCO <sub>3</sub>							
UPPER SANTA ANA HYDRO SUBUNIT				YO1E0				SANTA ANA RIVER HYDRO UNIT				YO100											
BUNKER HILL HYDRO SUBAREA				YO1E2																			
15/ 4W-23K 2 S 10- 6-64	67	7.6	808	--	--	--	--	--	--	--	--	43 1.21	--	--	--	--	51 0.62	--	--	--	--	527 499	282
5-17-65	68	7.5	843	70 3.49	26 2.14	73 3.17	2 0.05	0	312 5.11	82 1.71	44 1.24	48 0.77	0.8	0.07	--	--	48 0.77	9	--	--	--	499	277
6-17-65	68	7.6	824	68 3.39	26 2.14	72 3.13	3 0.08	0	310 5.08	81 1.69	41 1.16	52 0.84	0.8	0.06	--	--	52 0.84	10	--	--	--	490 496	
8- 9-65	68	7.6	841	--	--	--	--	--	--	82 1.71	44 1.24	59 0.95	--	--	--	--	59 0.95	--	--	--	--		
15/ 4W-23P 3 S 3-18-65	72	7.8	432	--	--	--	--	--	--	27 0.56	25 0.71	10.0 0.16	--	--	--	--	10.0 0.16	--	--	--	--		
8- 9-65	73	7.7	410	--	--	--	--	--	--	29 0.60	20 0.56	6 0.10	--	--	--	--	6 0.10	--	--	--	--		
15/ 4W-24E 1 S 10- 2-64	--	8.3	350	45 2.25	11 0.90	12 0.52	2 0.05	5 0.17	174 2.85	16 0.33	6 0.17	9.0 0.15	0.3	0.03	25	220	9.0 0.15	4	0.3	0.03	25	220	158
15/ 4W-25B 2 S 6-17-65	68	7.5	923	74 3.69	32 2.63	82 3.57	3 0.08	0	359 5.88	102 2.12	47 1.33	43 0.69	0.8	0.24	--	--	43 0.69	7	0.8	0.24	--	555 561	316

TABLE E-1

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**TABLE E-1**  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				Mineral constituents in parts per million					
				Calcium Co	Magne-sium Mg	Sodium Na	Potas-sium K	Carbon-ate CO <sub>3</sub>	Bicar-bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo-ride Cl	Ni-trate NO <sub>3</sub>	Fluo-ride F	Boron B	Sili-co SiO <sub>2</sub>	I.D.S. Evap 180°C Evap 105°C Computed CaCO <sub>3</sub>	
UPPER SANTA ANA HYDRO SUBUNIT																	
BUNKER HILL HYDRO SUBAREA																	
YO1E0																	
YO1E2																	
SANTA ANA RIVER HYDRO UNIT																	
YO100																	
1S/ 4W-29Q 1 S 10- 1-64	--	7.4	704	71 3.54 49	15 1.23 17	53 2.30 32	4 0.10 1	0	222 3.64 52	67 1.39 20	60 1.69 24	21.0 0.34 5	0.7	0.28	28	440 239	
1S/ 4W-30D 0 S 10- 2-64	--	7.6	489	63 3.14 61	14 1.15 23	17 0.74 14	3 0.08 2	0	194 3.18 63	45 0.94 19	9 0.45 5	42.0 0.68 13	0.4	0	25	320 215	
1S/ 4W-30L 4 S 10- 2-64	--	7.2	1269	171 8.53 61	26 2.14 15	72 3.13 22	5 0.13 1	0	443 7.26 53	108 2.25 16	96 2.71 20	94.0 1.52 11	0.3	0.37	29	830 534	
1N/ 3W-31L 3 S 6-24-65	83	8.1	636	43 2.15 32	8 0.66 10	81 3.52 53	14 0.36 5	0	228 3.74 55	86 1.79 26	21 0.59 9	41 0.66 10	1.3	0.29	--	368 141	
1N/ 3W-33M 1 S 6-24-65	--	7.5	580	58 2.89 61	11 0.90 19	19 0.83 17	5 0.13 3	0	146 2.39 52	48 1.00 22	18 0.51 11	45.5 0.73 16	0.2	0.01	--	352 190	
1N/ 4W-25A 1 S 6-24-65	71	7.7	529	39 1.95 37	8 0.66 12	61 2.65 50	3 0.08 1	0	159 2.61 51	67 1.39 27	18 0.51 10	39 0.63 12	2.3	0.11	--	308 131	
1N/ 4W-29E 1 S 6-16-65	66	8.1	457	64 3.19 64	14 1.15 23	13 0.57 11	3 0.08 2	0	234 3.84 77	33 0.69 14	7 0.20 4	15 0.24 5	0.6	0.01	--	291 217	
9-28-65	--	7.5	456	63 3.14 61	16 1.32 26	13 0.57 11	3 0.08 2	0	240 3.93 78	30 0.62 12	7 0.20 4	16 0.26 5	0.6	0.08	--	290 223	

TABLE E-1

ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	No- trate NO <sub>3</sub>	Fuor- ide F	Barium Ba	Sol- ids S O <sub>2</sub>	TDS Expressed as CaCO <sub>3</sub>	
UPPER SANTA ANA HYDRO SUBUNIT																	
BUNKER HILL HYDRO SUBAREA																	
Y01E0				Y01E2													
Y0100				SANTA ANA RIVER HYDRO UNIT													
1N/ 4W-29F 1 S 12- 2-64	--	7.4	737	110 5.49 67	23 1.89 25	17 0.74 5	4 0.10 1	0	259 4.21 53	147 3.06 38	20 0.56 7	13.0 0.41 3	0.6	0.32	25	510 487 369	
6-16-65	--	7.4	1059	158 7.88 65	33 2.71 22	33 1.43 12	6 0.15 1	0	300 4.92 41	293 6.10 50	25 0.71 6	22 0.35 3	0.7	0.68	--	800 719 530	
9-28-65	--	7.2	1168	166 8.28 61	36 2.96 22	48 2.09 16	6 0.15 1	0	311 5.10 38	340 7.08 53	27 0.76 6	28 0.45 3	0.5	0.92	--	910 805 562	
1N/ 4W-29L 1 S 9-28-65	--	7.5	605	83 4.14 64	18 1.48 23	16 0.70 11	4 0.10 2	0	239 3.92 61	74 1.54 24	15 0.42 7	36 0.58 9	0.5	0.08	--	415 364 281	
1N/ 4W-29P 2 S 3- 9-65	--	7.6	477	66 3.29 65	14 1.15 23	12 0.52 10	3 0.08 2	0	234 3.84 77	37 0.77 15	7 0.20 4	10 0.16 3	0.5	0.03	--	280 222 265	
6-16-65	66	7.6	536	74 3.69 64	17 1.40 24	14 0.61 11	4 0.10 2	0	236 3.87 68	48 1.00 18	14 0.39 7	28 0.45 8	0.7	0.03	--	359 316 255	
1N/ 4W-31A 1 S 6-16-65	66	7.4	500	67 3.34 61	16 1.32 24	16 0.70 13	4 0.10 2	0	240 3.93 73	49 1.02 19	10 0.28 5	10 0.16 3	0.8	0.03	--	311 271 233	
1N/ 5W-23A 1 S 8-13-65	--	7.6	524	65 3.24 61	15 1.23 23	18 0.78 15	4 0.10 2	0	248 4.06 73	49 1.02 18	12 0.34 6	9 0.15 3	0.6	0.05	--	359 295 224	



TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent reactance value				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	TDS Evap 180°C Evap 105°C as Computed Calc	Hardness as Calc
UPPER SANTA ANA HYDRO SUBUNIT																	
BUNKER HILL HYDRO SUBAREA																	
				YO1E0													
				YO1E2													
1N/ 5W-23A 2 S 9-28-65	--	7.6	500	68 3.39 60	16 1.32 23	19 0.83 15	3 0.08 1	0	256 4.20 75	51 1.06 19	8 0.23 4	8 0.13 2	0.6	0.06	--	310 299	236
2N/ 3W-27D 1 S 5- 4-65	--	7.0	261	28 1.40 53	8 0.66 25	12 0.52 20	2 0.05 2	0	127 2.08 80	4 0.08 3	12 0.34 13	6.1 0.10 4	0.2	0.02	--	116 135	103
REDLANDS				YO1E3													
1S/ 3W-13P 2 S 6-18-65	67	7.8	468	64 3.19 67	11 0.90 19	14 0.61 13	3 0.08 2	0	188 3.08 65	38 0.79 17	12 0.34 7	34 0.55 12	0.6	0	--	291 269	205
2S/ 3W- 4E 1 S 9-29-65	--	7.8	773	50 2.50 30	21 1.73 21	90 3.91 48	3 0.08 1	0	330 5.41 65	55 1.15 14	53 1.49 18	20 0.32 4	0.8	0.04	--	475 455	212
MENTONE HYDRO				YO1E4													
1S/ 2W-30B 3 S 9-29-65	--	7.4	674	75 3.74 52	25 2.06 29	31 1.35 19	2 0.05 1	0	254 4.16 57	70 1.46 20	14 0.39 5	82 1.32 18	0.6	0.02	--	455 424	290
1S/ 2W-30E 1 S 9-29-65	--	7.4	592	63 3.14 48	13 1.07 16	53 2.30 35	2 0.05 1	0	301 4.93 74	60 1.25 19	12 0.34 5	8.7 0.14 2	0.6	0.02	--	354 360	211

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million				Mineral constituents in parts per million				
				Calcium	Magne- sium	Sodium	Potas- sium	Carbon- ate	Bicar- bonate	Sulfate	Chlo- ride	Ni- trate	Fluo- ride	Boron	Sili- ca	Hardness as CaCO <sub>3</sub>
Date sampled				Co	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>	Computed
UPPER SANTA ANA HYDRO SUBUNIT RESERVOIR HYDRO SUBAREA																
				YO1E0				SANTA ANA RIVER HYDRO UNIT								
				YO1E5				YO100								
SANTA ANA CANYON HYDRO SUBAREA				YO1E7												
1S/ 3W-35G 8 S 9-29-65	--	7.5	609	59 2.94 46	19 1.56 24	42 1.83 29	3 0.08 1	0	228 3.74 57	60 1.25 19	18 0.51 8	63 1.02 16	0.6	0.01	--	377 377
1S/ 2W- 8C 1 S 6-28-65	64	8.1	480	48 2.40 46	12 0.99 19	41 1.78 34	4 0.13 2	0	212 3.47 64	75 1.56 29	9 0.25 5	6.2 0.10 2	0.6	0	--	272 300 170
MILL CREEK HYDRO SUBAREA				YO1E8												
1S/ 2W- 9P 1 S 6-23-65	66	8.1	575	63 3.14 57	14 1.15 21	26 1.13 21	3 0.08 1	--	207 3.39 63	46 0.96 18	21 0.59 11	27.5 0.44 8	0.6	0.27	--	320 303 215
1S/ 2W-14L 1 S 6-23-65	63	8.3	375	53 2.64 54	9 0.74 15	33 1.43 29	3 0.08 2	16 0.55 10	170 2.79 52	86 1.79 34	7 0.20 4	2.0 0.05 1	0.6	0	--	242 243 169
SYCAMORE HYDRO SUBAREA				YO1E9												
1W/ 5W-23H 1 S 9-28-65	--	7.7	503	61 3.04 55	20 1.64 30	17 0.74 13	3 0.08 1	0	244 4.00 73	56 1.21 22	8 0.23 4	4 0.06 1	0.5	0	--	350 291 234

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				Mineral constituents in parts per million					
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- tate NO <sub>3</sub>	Fer- ric oxide Fe <sub>2</sub> O <sub>3</sub>	Boron B	Sili- co SiO <sub>2</sub>	Total Evap 80°C as Computed Cells	
SANTA ANA RIVER HYDRO UNIT Y0100																	
SAN TIMOTEO HYDRO SUBUNIT Y01F0																	
YUCAIPA HYDRO SUBAREA Y01F1																	
1S/ 2W-34Q 1 S 2- 5-65	--	7.9	474	59 2.94 58	13 1.07 21	24 1.04 20	2 0.05 1	0	248 4.06 78	31 0.65 12	14 0.39 7	8.3 0.13 2	0.6	0.02	--	286 201	
1S/ 2W-34Q 2 S 2- 5-65	--	7.8	464	59 2.94 57	14 1.15 22	24 1.04 20	2 0.05 1	0	240 3.93 77	32 0.67 13	14 0.39 8	8.0 0.13 3	0.6	0.02	--	292 205	
2S/ 2W- 4L 1 S 9-29-65	--	7.6	457	58 2.89 58	14 1.15 23	21 0.91 18	2 0.05 1	0	241 3.95 77	35 0.73 14	10 0.28 5	8.4 0.14 3	0.6	0.01	--	279 202	
2S/ 2W- 8K 2 S 2- 4-65	--	7.9	405	33 1.65 38	5 0.41 9	52 2.26 52	2 0.05 1	0	194 3.11 71	32 0.67 15	20 0.56 13	2.5 0.04 1	0.6	0.02	--	250 103	
SAN TIMOTEO HYDRO SUBAREA Y01F2																	
2S/ 1W-30E 1 S 5- 4-65	68	7.7	399	42 2.10 51	15 1.23 30	17 0.74 18	1 0.03 1	--	207 3.39 81	10 0.21 5	18 0.51 12	6 0.10 2	0.6	0	--	248 167	
9-30-65	64	7.8	398	42 2.10 50	16 1.32 32	17 0.74 18	1 0.03 1	0	207 3.39 81	9 0.19 5	19 0.54 13	5 0.08 2	0.6	0.06	--	212 171	
2S/ 2W-14W 1 S 5- 4-65	76	8.1	396	24 1.20 30	5 0.41 10	54 2.35 59	1 0.03 1	--	168 2.75 69	19 0.40 10	27 0.76 19	3.5 0.06 2	0.7	0	--	234 81	
																217	

TABLE E-1

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TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					Mineral constituents in parts per million									
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	T.D.S. Evap 180°C Evap 105°C as Computed CaCO <sub>3</sub>		
SAN TIMOTEO HYDRO SUBUNIT SOUTH MESA HYDRO SUBAREA																		
Y01FO				SANTA ANA RIVER HYDRO UNIT														
Y01F7				Y0100														
15/ 1W-31H 1 S 9-29-65	--	7.6	483	57 2.84 54	14 1.15 22	28 1.22 23	0.03 1	1	0	243 3.98 75	34 0.71 13	16 0.45 8	12 0.19 4	0.4	0.01	--	276 282	200
25/ 2W-11F 1 S 2- 5-65	--	7.7	468	53 2.64 53	9 0.74 15	34 1.48 30	0.08 2	3	0	243 3.98 79	33 0.69 14	9 0.25 5	7 0.11 2	0.4	0.03	--	292 268	169
9-29-65	--	7.5	430	49 2.45 53	10 0.82 18	30 1.30 28	0.05 1	2	0	210 3.44 72	32 0.67 14	17 0.48 10	11 0.18 4	0.7	0.04	--	255 255	164
25/ 2W-12M 1 S 2- 5-65	--	7.8	495	40 2.00 39	12 0.99 19	50 2.17 42	0.03 1	1	0	223 3.65 71	32 0.67 13	25 0.71 14	5.8 0.09 2	1.4	0.03	--	278 277	150
9-29-65	--	7.6	480	40 2.00 39	12 0.99 19	48 2.09 41	0.05 1	2	0	230 3.77 73	27 0.56 11	24 0.68 13	8.3 0.13 3	1.0	0.03	--	275 275	150
25/ 2W-14B 1 S 2- 4-65	--	7.5	505	43 2.15 41	12 0.99 19	49 2.13 40	0.03 1	1	0	233 3.82 72	32 0.67 13	25 0.71 13	6.5 0.10 2	1.0	0	--	309 284	157
5- 4-65	74	7.8	500	37 1.85 36	10 0.82 16	55 2.39 47	0.03 1	1	--	210 3.44 67	40 0.83 16	27 0.76 15	4.5 0.07 1	1.1	0	--	302 279	134
9-30-65	72	7.5	495	40 2.00 36	12 0.99 18	50 2.17 39	0.03 7	15	0	200 3.28 64	49 1.02 20	24 0.68 13	11 0.18 3	1.2	0.10	--	290 301	150

Y0100

SANTA ANA RIVER HYDRO UNIT

Y01FO

SUBAREA

SUBUNIT

SOUTH MESA

HYDRO

Y01F7



TABLE E-1

ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent					Mineral constituents in parts per million				
				Ca c.c.	Mg s.s.m. Mg	Sodium No	Potash s.s.m. K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Ferric oxide Fe	Silica SiO <sub>2</sub>	Total Dissolved Solids mg/l	Calcium Ca c.c.		
SAN TIMOTEO HYDRO SUBUNIT																		
SOUTH MESA HYDRO SUBAREA																		
YOLF7																		
2S/ 2W-14C 1 S	--	7.4	523	56	17	36	1	0	288	17	20	9.5	1.0	0.03	--	296	210	
9-29-65				2.79	1.40	1.57	0.03		4.72	0.35	0.56	0.15				299		
				48	24	27	1		82	6	10	3						
NOBIE CREEK HYDRO SUBAREA																		
YOLF9																		
2S/ 1W-1E 1 S	72	7.5	394	46	14	12	2	--	201	27	7	2	0.5	0	--	175	173	
4- 7-65				2.30	1.15	0.52	0.05		3.29	0.56	0.20	0.03				204		
				57	29	13	1		81	14	5	1						
2S/ 1W-14N 1 S	72	7.9	424	45	14	19	1	--	183	40	12	7	0.6	0.07	--	183	170	
4- 6-65				2.25	1.15	0.83	0.03		3.00	0.83	0.34	0.11				229		
				53	27	19	1		70	19	8	3				214	211	
2S/ 1W-22H 1 S	72	7.8	510	55	18	22	1	--	225	37	26	4	0.6	0	--	274		
4- 7-65				2.74	1.48	0.96	0.03		3.69	0.77	0.73	0.06				236	190	
				53	28	18	1		70	15	14	1				296		
2S/ 1W-27B 1 S	72	8.0	532	48	17	37	2	--	230	54	18	6	0.9	0.06	--			
4- 6-65				2.40	1.40	1.61	0.05		3.77	1.12	0.21	0.10						
				44	26	29	1		69	20	9	2						

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					Mineral constituents in parts per million									
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	Total dissolved solids Evap 105°C Computed		
SAN BERNARDINO MT HYDRO SUBUNIT Y01G0																		
BALDWIN HYDRO SUBAREA Y01G3																		
2N/ 2E-19A 1 S 5-10-65	--	7.0	279	24	15	10	1	0	154	8	6	1.0	0.2	0.03	--	166	122	
				1.20 42	1.23 43	0.43 15	0.03 1		2.52 88	0.17 6	0.17 6	0.02 1				141		

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million percent reactance value				Mineral constituents in parts per million						
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fuo- ride F	Boron B	Silic- co SiO <sub>2</sub>	Total Hardness at 105°C Computed CaCO <sub>3</sub>		
PERRIS HYDRO SUBUNIT				SAN JACINTO VALLEY HYDRO UNIT										Y0200				
PERRIS VALLEY				Y02A1										Y02A0				
2S/ 3W-31N 1 S 3-26-65	56	7.8	1177	89 4.44 37	29 2.38 20	119 5.17 43	4 0.10 1	0	146 2.39 20	312 6.50 55	104 2.93 25	0	0.6	0.14	--	749 729	341	
3S/ 3W- 2L 1 S 5- 6-65	82	8.1	410	28 1.40 32	5 0.41 9	57 2.48 57	3 0.08 2	0	130 2.13 50	8 0.17 4	49 1.38 33	35 0.56 13	0.2	0.06	--	274 249	91	
3S/ 3W- 2L 2 S 5- 6-65	80	8.0	440	28 1.40 30	7 0.58 13	58 2.52 55	4 0.10 2	0	136 2.23 48	5 0.10 2	62 1.75 38	35 0.56 12	0.2	0.05	--	288 266	99	
3S/ 3W-21A 1 S 5- 3-65	84	8.1	770	34 1.70 21	13 1.07 13	120 5.22 64	6 0.15 2	0	122 2.00 25	11 0.23 3	207 5.84 72	0	0.8	0.17	--	498 452	139	
3S/ 3W-21A 2 S 5- 3-65	75	8.1	980	46 2.30 22	26 2.14 21	130 5.65 55	7 0.18 2	0	148 2.43 24	26 0.54 5	238 6.71 87	23 0.37 4	1.0	1.01	--	664 571	222	
3S/ 3W-22D 1 S 5- 3-65	79	7.8	900	47 2.35 25	13 1.07 12	132 5.74 62	5 0.13 1	0	171 2.80 31	43 0.90 10	177 4.99 55	26 0.42 5	1.0	0.92	--	544 529	171	
3S/ 3W-29M 1 S 5- 6-65	80	8.0	565	29 1.45 25	6 0.49 8	88 3.83 65	3 0.08 1	0	96 1.57 27	14 0.29 5	123 3.47 60	28 0.45 8	0.6	0.56	--	348 339	97	
9-22-65	80	8.0	609	27 1.35 25	5 0.41 8	80 3.48 65	3 0.08 2	0	84 1.38 26	17 0.35 6	117 3.30 61	23 0.37 7	0.7	0.52	--	330 315	80	

TABLE E-1

ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million						
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fuo- ride F	Boron B	Sili- co SiO <sub>2</sub>	Total Hard- ness as CaCO <sub>3</sub>
PERRIS HYDRO SUBUNIT PERRIS VALLEY				SAN JACINTO VALLEY HYDRO UNIT										Y0200		
Y02A0				Y02A1												
3S/ 3W-32M 1 S 4-30-65	74	7.9	679	44 2.20 37	6 0.49 8	74 3.22 54	3 0.08 1	--	96 1.57 26	22 0.46 8	130 3.67 61	19 0.31 5	0.8	0.64	--	452 347
9-24-65	76	8.0	544	27 1.35 29	4 0.33 7	69 3.00 63	2 0.05 1	0	75 1.23 26	18 0.37 8	105 2.96 63	9 0.15 3	1.4	0.74	--	289 273
4S/ 3W- 5E 1 S 4-29-65	72	7.9	1090	99 4.94 42	16 1.32 11	125 5.44 46	5 0.13 1	0	156 2.56 22	44 0.92 8	286 8.07 69	8 0.13 1	0.4	1.00	--	858 661
4S/ 3W- 6Q 1 S 3-29-65	72	8.9	506	12 0.60 13	1 0.08 2	87 3.78 84	2 0.05 1	10 0.33 8	49 0.80 18	24 0.50 12	91 2.57 59	8.2 0.13 3	1.2	0.73	--	297 261
4S/ 3W- 7J 1 S 3-30-65	73	7.9	1229	95 4.74 43	23 1.89 17	98 4.26 39	4 0.10 1	--	125 2.05 19	25 0.52 5	280 7.90 73	25 0.40 4	0.5	0.68	--	726 613
4S/ 3W-16N 1 S 3-29-65	76	7.8	1028	74 3.69 41	16 1.32 15	90 3.91 43	4 0.10 1	0	129 2.11 23	32 0.67 7	214 6.03 66	16 0.26 3	0.6	0.51	--	648 511
4S/ 3W-17C 1 S 3-30-65	73	7.7	908	59 2.94 38	13 1.07 14	86 3.74 48	3 0.08 1	--	77 1.26 16	14 0.29 4	214 6.03 78	11 0.18 2	0.5	0.52	--	341 439
9-24-65	66	7.8	1196	88 4.39 38	29 2.38 20	112 4.87 42	2 0.05	0	126 2.07 18	272 5.66 49	136 3.84 33	1.8 0.03	0.6	0.24	--	755 704

TABLE E-1

ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million reactance value				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Baron B	Sili- ca SiO <sub>2</sub>	TDS Evap 180°C Evap 100°C as CaCO <sub>3</sub>	
SAN JACINTO VALLEY HYDRO UNIT Y0200																	
PERRIS HYDRO SUBUNIT Y02AO																	
PERRIS VALLEY HYDRO SUBAREA Y02AI																	
4S/ 3W-17J 1 S 3-30-65	73	8.2	1759	147 7.34 45	32 2.63 16	141 6.13 38	5 0.13 1	--	162 2.66 17	47 0.98 6	425 11.99 76	13 0.21 1	0.6	0.96	--	984 891	499
9-24-65	74	7.5	1723	147 7.34 47	33 2.71 17	128 5.57 35	5 0.13 1	0	186 3.05 20	48 1.00 6	398 11.22 72	16 0.26 2	0.6	0.83	--	1264 868	503
4S/ 3W-21F 1 S 5- 3-65	75	7.5	1780	183 9.13 48	40 3.29 17	150 6.52 34	4 0.10 1	0	83 1.36 7	46 0.96 5	582 16.41 87	13 0.21 1	0.4	0.43	--	1122 1060	621
4S/ 3W-21J 2 S 4-29-65	--	7.7	780	74 3.69 44	23 1.89 23	61 2.65 32	4 0.10 1	0	256 4.20 51	19 0.40 5	120 3.38 41	17 0.27 3	0.4	0.12	--	556 444	279
4S/ 3W-26C 1 S 9-30-65	81	7.4	16620	1314 65.57 36	230 18.92 10	2262 98.35 54	22 0.56 1	0	114 1.87 1	643 13.39 7	5960 168.07 92	11 0.18 1	0.9	7.90	--	11620 10507	4228
4S/ 3W-26F 1 S 3-29-65	77	7.5	5945	419 20.91 36	100 8.22 14	653 28.39 49	12 0.31 1	0	112 1.84 3	244 5.08 9	1770 49.91 88	8 0.13 1	0.4	2.50	--	3763 3264	1458
9-24-65	80	7.6	6341	458 22.85 36	109 8.96 14	717 31.18 49	9 0.23 1	0	126 2.07 3	297 6.18 10	1947 54.91 87	14 0.23 1	0.4	3.10	--	4375 3616	1592
4S/ 3W-26F 2 S 4-29-65	81	7.4	8400	818 40.82 39	112 9.21 9	1225 53.26 51	25 0.64 1	0	116 1.90 2	358 7.45 7	3316 93.51 91	0	0.2	1.54	--	7270 5913	2504



TABLE E-1

ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					Mineral constituents in parts per million									
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Total F F	Sulfur co S O <sub>2</sub>	Total Evap 180°C Evap 105°C as CaCO <sub>3</sub>			
SAN JACINTO VALLEY HYDRO UNIT Y0200																		
YOZAO																		
PERRIS HYDRO SUBUNIT Y02A0																		
PERRIS VALLEY HYDRO SUBAREA Y02A1																		
4S/ 3W-26J 1 S 3-29-65	80	8.3	1783	68 3.39 22	4 0.33 2	260 11.30 75	0.10 1	4 0.17 1	5 0.90 6	55 0.83 5	465 13.11 86	10 0.16 1	0.4	0.52	--	1040 884	186	
4-29-65	82	7.8	1550	77 3.84 23	4 0.33 2	285 12.39 74	0.15 1	6 0.17 1	83 1.36 8	40 0.83 5	505 14.24 86	7 0.11 1	0.4	0.58	--	1082 966	209	
9-24-65	80	8.1	1737	67 3.34 22	3 0.25 2	262 11.39 76	0.10 1	4 0.17 1	62 1.02 7	36 0.75 5	472 13.31 87	10 0.16 1	0.5	0.53	--	1066 885	180	
4S/ 3W-26Q 1 S 4-29-65	82	7.5	2600	121 6.04 21	2 0.16 1	505 21.96 77	0.20 1	8 0.17 1	45 0.74 3	37 0.77 3	961 27.10 95	4 0.06 1	0.2	0.55	--	1934 1661	310	
4S/ 3W-27D 2 S 4-29-65	--	7.8	1180	59 2.94 23	51 4.19 32	130 5.65 44	0.15 1	6 0.17 1	153 2.51 20	333 6.93 55	115 3.24 26	1 0.02 1	0.4	0.10	--	800 771	357	
4S/ 3W-28H 1 S 5- 3-65	--	7.5	2800	339 16.92 52	62 5.10 16	235 10.22 32	0.10 1	4 0.17 1	326 5.34 17	169 3.52 11	805 22.70 71	18 0.29 1	0.2	0.37	--	2244 1793	1102	
4S/ 3W-34E 1 S 11-12-64	--	6.9	3448	26 1.30 4	9 0.74 2	690 30.00 93	0.13 1	5 0.17 1	207 3.39 11	247 5.14 16	835 23.55 73	3 0.05 1	1.1	1.70	12	1955 1932	102	
4-29-65	73	6.4	4000	86 4.29 10	10 0.82 2	880 38.26 88	0.26 1	0 0.17 1	87 1.43 3	327 6.81 16	1262 35.59 81	0	0.6	1.60	--	2690 2620	256	

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million								Mineral constituents in parts per million						
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlor- ide Cl	Ni- trate NO <sub>3</sub>	Fuo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	TDS Evap 100°C as Computed CaCO <sub>3</sub>		
SAN JACINTO VALLEY HYDRO UNIT Y0200																		
PERRIS HYDRO SUBUNIT Y02AO																		
PERRIS VALLEY HYDRO SUBAREA Y02A1																		
5S/ 2W-17C 1 S 3-29-65	63	7.7	653	49 2.45 39	14 1.15 18	60 2.61 41	0.10 0.10 2	4	0	230 3.77 59	27 0.56 9	60 1.69 26	0.5	0.13	--	406 354	180	
9-27-65	64	7.8	664	51 2.54 38	16 1.32 20	61 2.65 40	4 0.10 2	4	0	226 3.70 56	26 0.54 8	62 1.75 27	0.6	0.09	--	438 367	193	
5S/ 3W-2D 1 S 4-29-65	83	7.4	4000	425 21.21 50	61 5.02 12	360 15.65 37	16 0.41 1	16	0	124 2.03 5	38 0.79 2	1394 39.31 93	0.4	0.60	--	3030 2362	1313	
5S/ 3W-3R 1 S 4-29-65	81	8.5	1040	94 4.69 37	12 0.99 8	156 6.78 54	4 0.10 1	4	6 0.20 2	62 1.02 9	14 0.29 2	359 10.12 87	0.8	0.51	--	734 681	284	
MENEFEE HYDRO SUBAREA Y02A2																		
5S/ 3W-21D 2 S 3-30-65	68	8.2	1180	90 4.49 37	31 2.55 21	112 4.87 40	5 0.13 1	5	0	151 2.47 21	312 6.50 54	105 2.96 25	0.6	0.19	--	744 730	352	
9-24-65	78	7.6	2030	216 10.78 56	51 4.19 22	96 4.17 22	6 0.15 1	6	0	140 2.29 12	81 1.69 9	517 14.58 77	0.3	0.05	--	1870 1065	749	
5S/ 3W-36D 2 S 11-5-64	--	7.1	1460	118 5.89 39	47 3.87 26	120 5.22 35	5 0.13 1	5	0	130 2.13 14	267 5.56 37	261 7.36 48	0.2	0.10	--	1116 890	488	

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in							parts per million equivalents per percent		Mineral constituents in parts per million									
				Calcium Co	Magne-sium Mg	Sodium Na	Potas-sium K	Carbon-ate CO <sub>3</sub>	Bicar-bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo-ride Cl	Ni-trate NO <sub>3</sub>	Fer-ride Fe	Bor-on B	Sul-co S O <sub>2</sub>	I.D.S. Evap 180°C Evap 120°C as Computed Calc. 3	Tota l Hardness as Calc. 3					
PERRIS HYDRO SUBUNIT				Y02A0										SAN JACINTO VALLEY HYDRO UNIT							Y0200	
MENIFEE HYDRO SUBAREA				Y02A2																		
5S/ 3W-36D 2 S 5- 4-65	59	7.4	1300	103 5.14 38	39 3.21 24	117 5.09 38	5 0.13 1	0	141 2.31 17	236 4.91 37	213 6.01 45	8 0.13 1	0.4	0.12	--	868 791	418					
5S/ 3W-36Q 1 S 3-30-65	72	6.5	1483	127 6.34 43	44 3.62 24	108 4.70 32	5 0.13 1	0	309 5.06 34	163 3.39 23	220 6.20 42	15 0.24 2	0.4	0.12	--	960 834	498					
6S/ 2W- 6E 1 S 5- 4-65	--	7.1	1060	82 4.09 37	27 2.22 20	105 4.57 41	6 0.15 1	0	281 4.61 42	97 2.02 19	147 4.15 38	6 0.10 1	0.4	0.12	--	694 609	316					
6S/ 2W- 6P 1 S 3-30-65	74	6.9	1235	98 4.89 39	35 2.88 23	104 4.52 36	5 0.13 1	0	366 6.00 47	151 3.14 25	123 3.47 27	9 0.15 1	0.6	0.09	--	755 706	389					
6S/ 2W- 7A 1 S 11- 5-64	--	7.0	1320	105 5.24 38	41 3.37 24	120 5.22 37	5 0.13 1	0	283 4.64 34	228 4.75 34	147 4.15 30	15 0.24 2	0.2	0.12	--	912 800	431					
6S/ 3W- 1D 1 S 5- 4-65	64	7.8	1110	66 3.29 28	46 3.78 32	108 4.70 39	7 0.18 2	0	230 3.77 32	171 3.69 31	155 4.37 37	0	0.2	0.17	--	740 672	354					
6S/ 3W- 2F 1 S 11- 5-64	--	6.9	590	47 2.35 39	17 1.40 23	52 2.26 37	3 0.08 1	0	133 2.18 36	60 1.25 21	80 2.26 37	21 0.34 6	0.2	0.05	--	416 346	188					
5- 4-65	--	7.3	595	51 2.54 41	14 1.15 19	56 2.43 39	3 0.08 1	0	140 2.29 38	53 1.10 18	84 2.37 39	19 0.31 5	0.2	0.22	--	418 349	185					

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million							Mineral constituents in parts per million						
				Calcium	Magne- sium	Sodium	Potas- sium	Carbon- ate	Bicar- bonate	Sulfate	Chlo- ride	Ni- trate	Fuo- ride	Boron	Sili- ca	TDS Evap Resid as CaCO3	
Date sampled				Co	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>	Computed CaCO <sub>3</sub>	
SAN JACINTO VALLEY HYDRO UNIT Y0200																	
PERRIS HYDRO SUBUNIT Y02A0																	
MENIFEE HYDRO SUBAREA Y02A2																	
6S/ 3W-16C 1 S	70	7.6	1655	140	60	106	3	0	317	99	300	42	0.5	0.09	--	596	
9-27-65				6.99	4.93	4.61	0.08		5.20	2.06	8.46	0.68				1153	
				42	30	28			32	13	52	4				906	
6S/ 3W-20B 1 S	60	7.3	602	48	17	45	2	0	206	31	61	13	0.4	0.08	--	312	
3-30-65				2.40	1.40	1.96	0.05		3.38	0.65	1.72	0.21				190	
				41	24	34	1		57	11	29	4				319	
9-27-65	70	7.4	603	49	17	45	2	0	198	29	65	15	0.4	0.04	--	382	
				2.45	1.40	1.96	0.05		3.25	0.60	1.83	0.24				193	
				42	24	33	1		55	10	31	4				320	
WINCHESTER HYDRO SUBAREA Y02A3																	
5S/ 2W- 3M 1 S	70	7.5	662	48	17	59	5	0	267	24	48	23	0.6	0.16	--	190	
3-29-65				2.40	1.40	2.57	0.13		4.38	0.50	1.35	0.37				376	
				37	22	40	2		66	8	20	6				356	
9-27-65	70	7.6	829	64	23	74	6	0	296	39	75	36	0.5	0.21	--	254	
				3.19	1.89	3.22	0.15		4.85	0.81	2.12	0.58				502	
				38	22	38	2		58	10	25	7				254	
5S/ 2W-19N 1 S	76	6.9	675	45	11	63	3	0	115	37	105	25	0.2	0.09	--	158	
3-30-65				2.25	0.90	2.74	0.08		1.88	0.77	2.96	0.40				458	
				38	15	46	1		31	13	49	7				346	
9-27-65	76	7.0	755	57	13	69	3	0	134	36	113	50	0.3	0.02	--	530	
				2.84	1.07	3.00	0.08		2.20	0.75	3.19	0.81				196	
				41	15	43	1		32	11	46	12				407	

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number		Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents percent reactance value					Mineral constituents in parts per million				
Date sampled					Calcium Co	Magne-sium Mg	Sodium Na	Potas-sium K	Carbon-ate CO <sub>3</sub>	Bicar-bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo-ride Cl	Ni-trate NO <sub>3</sub>	Fluo-ride F	Boron B	Sili-ca SiO <sub>2</sub>	TDS, Evap 180°C as CaCO <sub>3</sub> Computed		
PERRIS HYDRO SUBUNIT					SAN JACINTO VALLEY HYDRO UNIT														
WINCHESTER HYDRO SUBAREA					Y02A0					Y0200									
Y02A3																			
5S/ 2W-25C 1 S 5- 4-65		70	7.9	1480	100 4.99 31	42 3.45 22	167 7.26 46	7 0.18 1	0	117 1.92 12	269 5.60 35	299 8.43 52	12 0.19 1	0.1	0.95	--	980 955	422	
5S/ 2W-26H 3 S 11- 9-64		--	7.3	2571	244 12.18 47	57 4.69 18	210 9.13 35	7 0.18 1	0	98 1.61 6	296 6.16 24	630 17.77 69	5 0.08	0.5	0.60	12	1650 1510	844	
5S/ 2W-27P 1 S 5- 4-65		--	7.6	10000	986 49.20 36	362 29.77 22	1310 56.96 42	22 0.56	0	176 2.88 2	2040 42.47 31	3308 93.29 67	0	0.1	1.36	--	8596 8116	3952	
5S/ 2W-29N 1 S 5- 5-65		70	6.9	3000	234 11.68 35	75 6.17 18	355 15.44 46	14 0.36 1	0	315 5.16 15	512 10.66 31	645 18.19 53	0	0.1	1.08	--	2026 1991	893	
5S/ 2W-31H 1 S 5- 4-65		64	6.6	1550	84 4.19 24	64 5.26 31	175 7.61 44	6 0.15 1	0	643 10.54 62	40 0.83 5	180 5.08 30	33 0.53 3	0.1	0.17	--	960 898	473	
5S/ 2W-33E 1 S 5- 5-65		--	7.9	460	28 1.40 28	11 0.90 18	60 2.61 53	2 0.05 1	0	127 2.08 43	27 0.56 12	71 2.00 42	10 0.16 3	0.2	0.06	--	328 272	115	
5S/ 2W-36D 1 S 5- 6-65		70	7.8	1550	111 5.54 33	63 5.18 31	137 5.96 35	7 0.18 1	0	173 2.84 17	301 6.27 38	256 7.22 44	15 0.24 1	0.1	0.31	--	1034 975	536	



TABLE E-1

ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					Mineral constituents in parts per million							
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fec- ide F	Other SO <sub>2</sub>	Total Dissolved Solids ppm	
PERRIS HYDRO SUBUNIT				SAN JACINTO VALLEY HYDRO UNIT										YO200		
LAKEVIEW HYDRO SUBAREA				YO2A4												
YO2A0																
35/ 2W-32R 1 S 4-30-65	93	8.5	760	5 0.25	1 0.08	177 7.70	3 0.08	3 0.10	76 1.25	11 0.23	224 6.32	0	1.4	2.64	492	17
45/ 2W-9M 1 S 4-30-65	74	7.9	842	41 2.05	13 1.07	108 4.70	4 0.10	--	131 2.15	111 2.31	120 3.38	3.5 0.06	0.5	1.30	465	156
45/ 2W-11E 2 S 4-30-65	--	7.6	1360	48 2.40	14 1.15	252 10.96	3 0.08	0	173 2.84	248 5.16	220 6.20	5 0.08	0.8	0.64	537	178
45/ 3W-130 1 S 9-24-65	74	7.9	758	16 48	8 15	75 74	1 4	0	20 134	36 12	43 152	1	0.3	0.50	467	187
45/ 3W-25D 2 S 4-29-65	81	7.7	3000	35 2.40	18 1.23	46 3.22	1 0.10	0	32 2.20	4 0.25	63 4.29	1	0.2	1.33	177	1087
9-30-65	78	8.0	2798	293 14.62	79 6.50	270 11.74	10 0.26	0	151 2.47	192 4.00	918 25.89	8 0.13	0.3	1.70	1866	784
HEMET HYDRO SUBAREA				YO2A5												
55/ 1E-20D 1 S 9-29-65	68	7.8	1048	44 4.84	22 2.47	32 3.48	2 0.23	0	33 3.82	37 4.10	24 2.59	43 0.69	0.7	0.11	1866	1866

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number		Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million reactivity value					Mineral constituents in parts per million				
Date sampled	Calcium Co				Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	TDS Evaporated as CaCO <sub>3</sub> Computed			
PERRIS HYDRO SUBUNIT					Y02A0					SAN JACINTO VALLEY HYDRO UNIT					Y0200				
HEMET HYDRO SUBAREA					Y02A5														
4S/ 1W-31D 2 S 4-30-65	70	7.8	1550	86 4.29	21 1.73	199 8.65	0.15	6	--	141 2.31	263 5.48	246 6.94	5 0.08	0.8	0.96	--	981	301	
				29 12	58 1					16	37	47	1				897		
9-30-65	70	8.0	1574	90 4.49	23 1.89	206 8.96	0.20	8	0	140 2.29	270 5.62	261 7.36	5 0.08	0.9	1.20	--	971	319	
				29 12	58 1					15	37	48	1				934		
4S/ 2W-36A 1 S 12- 9-64	--	7.8	2820	--	--	--	--	--	0	305 5.00	--	391 11.03	--	--	--	--		336	
4S/ 2W-36J 1 S 4-30-65	70	8.1	640	14 0.70	3 0.25	130 5.65	0.13	5	--	291 4.77	47 0.98	32 0.90	2 0.03	1.1	0.78	--	434	48	
				10 4	84			2		71	15	13					378		
5S/ 1W- 5B 1 S 5- 6-65	76	8.1	850	38 1.90	2 0.16	152 6.61	0.18	7	0	87 1.43	173 3.60	128 3.61	12 0.19	0.4	0.36	--	548	103	
				21	2	75	2			16	41	41	2				555		
5S/ 1W-13C 1 S 9-29-65	72	8.0	987	99 4.94	25 2.06	75 3.26	0.20	8	0	209 3.43	226 4.71	67 1.89	24 0.39	0.9	0.12	--	678	350	
				47	20	31	2			33	45	18					628		
5S/ 1W-15D 1 S 5- 5-65	76	7.9	1380	114 5.69	56 4.61	108 4.70	0.18	7	0	142 2.33	360 7.50	145 4.09	82 1.32	0.2	0.11	--	982	515	
				37	30	31	1			15	49	27	9				942		
5S/ 1W-20B 1 S 4-29-65	76	7.9	938	88 4.39	18 1.48	81 3.52	0.15	6	--	170 2.79	215 4.48	70 1.97	16 0.26	0.5	0.05	--	634	294	
				46	16	37	2			29	47	21	3				578		

**TABLE E-1**  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per percent			million value			Mineral constituents in parts per million				
				Calcium	Magne- sium	Sodium	Potas- sium	Carbon- ate	Bicar- bonate	Sulfate	Chlo- ride	Ni- trate	Fer- rous	Bor- on	Sul- fur	I.D.S. Extrap 180°C Extrap 105°C Computed	Hardness d.k. CaCO <sub>3</sub>		
Date sampled				Ca	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	S				
PERRIS HYDRO SUBUNIT HEMET HYDRO SUBAREA																			
YO2A0				SAN JACINTO VALLEY HYDRO UNIT														YO200	
YO2A5																			
5S/ 1W-20B 1 S 9-27-65	76	7.8	941	87 4.34 45	19 1.56 16	81 3.52 37	6 0.15 2	0	172 2.82 30	211 4.39 46	71 2.00 21	17 0.27 3	0.4	0.06	--	623 577	205		
5S/ 1W-21A 1 S 9-29-65	74	7.7	706	58 2.89 42	14 1.15 17	63 2.74 40	5 0.13 2	0	165 2.70 40	85 1.77 26	72 2.03 30	17 0.27 4	0.2	0.04	--	425 396	202		
5S/ 1W-27L 1 S 4-29-65	68	7.8	708	45 2.25 33	13 1.07 16	76 3.30 49	4 0.10 1	--	163 2.67 40	46 0.96 14	89 2.51 37	38 0.61 9	0.5	0.10	--	431 392	166		
9-29-65	68	7.9	724	47 2.35 33	15 1.23 17	77 3.35 48	4 0.10 1	0	167 2.74 39	46 0.96 14	91 2.57 37	42 0.68 10	0.6	0.11	--	436 408	179		
5S/ 2W- 1A 1 S 5- 3-65	--	7.6	700	49 2.45 33	13 1.07 15	80 3.48 47	14 0.36 5	0	187 3.06 42	90 1.87 26	80 2.26 31	7 0.11 2	0.2	0.22	--	434 429	176		
5S/ 2W-12Q 2 S 5- 6-65	70	8.0	880	39 1.95 21	40 3.29 36	89 3.87 42	6 0.15 2	0	253 4.15 45	69 1.44 16	105 2.96 32	29 0.65 7	0.2	0.11	--	378 312	262		
5S/ 2W-13P 1 S 11- 9-64	--	7.7	5208	305 15.22 29	51 4.19 8	770 33.48 63	13 0.33 1	0	83 1.36 3	551 11.47 22	1425 40.19 76	5 0.08 2	0.9	7.80	12	4710 3184	471		
5S/ 2W-24R 1 S 5- 4-65	79	7.9	1950	120 5.99 29	67 5.51 26	213 9.26 44	7 0.18 1	0	178 2.92 14	257 5.35 26	426 12.07 58	19 0.31 2	0.1	1.22	--	1360 1200	379		

TABLE E-1  
ANALYSES OF GROUND WATER  
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent reactance value				Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	Total hardness
Date sampled				Co	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>	as CaCO <sub>3</sub>
SAN JACINTO HYDRO SUBUNIT																
SAN JACINTO HYDRO SUBAREA				Y02B0				Y02B1				Y0200				
5S/ 1E- 5M 2 S 9-29-65	76	8.4	340	25 1.25 35	3 0.25 7	46 2.00 56	2 0.05 1	2 0.27 8	8 2.23 63	23 0.48 14	19 0.54 15	2 0.03 1	0.7	0.09	--	163 196
5S/ 1E- 9J 1 S 5- 7-65	64	7.9	537	51 2.54 47	7 0.58 11	50 2.17 40	4 0.10 2	0 0	189 3.10 57	75 1.56 28	27 0.76 14	3.6 0.06 1	0.5	0.03	--	309 311
5S/ 1E-14G 1 S 4-29-65	84	8.0	529	25 1.25 22	12 0.99 17	78 3.39 60	2 0.05 1	-- 4.06 5	248 4.06 5	27 0.56 10	24 0.68 13	5 0.08 1	1.8	0.19	--	313 297
9-29-65	80	7.8	1087	37 1.85 17	14 1.15 10	185 8.04 72	4 0.10 1	0 0	173 2.84 26	297 6.18 58	59 1.66 15	3 0.05	4.3	0.35	--	667 689
3S/ 2W- 7P 1 S 9-30-65	76	8.5	932	5 0.25 3	3 0.25 3	204 8.87 94	3 0.08 1	17 0.57 6	340 5.57 59	20 0.42 4	96 2.71 29	12 0.19 2	3.5	0.62	--	532 531
5S/ 1W- 1C 1 S 4-30-65	68	7.9	404	46 2.30 57	4 0.33 8	30 1.30 32	4 0.10 2	-- 0	171 2.80 69	37 0.77 19	17 0.48 12	1 0.02	0.4	0	--	247 223
9-29-65	66	8.0	386	46 2.30 57	5 0.41 10	28 1.22 30	4 0.10 2	0 0	172 2.82 70	32 0.67 17	18 0.51 13	1 0.02	0.4	0.07	--	200 219





TABLE E-1  
ANALYSES OF GROUND WATER  
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	I.D.S. Evap 180°C as CaCO <sub>3</sub>
Date sampled				Ca	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>	Comp. as CaCO <sub>3</sub>
SAN JUAN HYDRO SUBUNIT				Z01B0												
SAN JUAN HYDRO UNIT				Z01C0												
65/ 7W-11N 2 S 11-12-64	--	7.6	884	117 5.84 62	27 2.22 24	30 1.30 14	3 0.08 1	0	259 4.25 45	213 4.43 46	29 0.82 9	2.2 0.04	0.1	0.04	17	603 566
75/ 7W-19D 2 S 11-30-64	--	7.4	711	88 4.39 58	19 1.56 21	34 1.48 20	3 0.08 1	0	242 3.97 53	127 2.64 36	28 0.79 11	1.8 0.03	0.5	0.04	30	498 450
75/ 7W-32R 1 S 11-13-64	62	7.6	1412	70 3.49 26	21 1.73 13	192 8.35 61	4 0.10 1	0	278 4.56 32	213 4.43 31	181 5.10 36	0.2	0.8	0.33	26	870 845
5-14-65	64	7.4	1495	--	--	--	--	0	288 4.72	--	198 5.58	--	--	--	--	--
75/ 7W-36A 1 S 11-18-64	65	7.3	807	81 4.04 51	21 1.73 22	47 2.04 26	4 0.10 1	0	217 3.56 44	123 2.56 32	65 1.83 23	7.1 0.11 1	0.5	0.06	33	510 488
5-14-65	--	7.3	807	--	--	--	--	0	211 3.46	--	67 1.89	--	--	--	--	--
75/ 8W- 1D 1 S 11-13-64	64	7.4	2033	158 7.88 37	50 4.11 19	208 9.04 43	4 0.10	0	359 5.88 28	386 8.04 38	262 7.39 35	0.0	0.4	0.10	24	1244 1269
5-14-65	68	7.4	1936	--	--	--	--	0	232 3.80	--	269 7.59	--	--	--	--	--

TABLE E-1  
ANALYSES OF GROUND WATER  
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent reactance value					Mineral constituents in parts per million				
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fer- ride F	B B	Sul- fur S	Total Extr. Diss. Extr. Diss. Total		
SAN JUAN HYDRO SUBUNIT				Z0180										Z0100				
SAN JUAN HYDRO UNIT				Z0100										Z0100				
7S/ 8W-25B 4 S 5-13-65	66	7.4	854	106 5.29 56	23 1.89 20	41 1.78 19	21 0.54 6	0	246 4.03 44	166 3.46 38	53 1.49 16	6 0.10 1	0.3	0.05	25	597 359		
8S/ 7W- 6H 1 S 5-14-65	--	7.3	2163	226 11.28 45	61 5.02 20	200 8.70 35	4 0.10	0	313 5.13 20	671 13.97 56	214 6.03 24	0	0.4	0.36	26	1636 816		
8S/ 7W- 6H 3 S 11-13-64	65	7.0	2096	223 11.13 47	67 5.51 23	160 6.96 29	5 0.13 1	0	261 4.28 18	687 14.30 60	193 5.44 23	0.0	0.4	0.24	31	1585 833		
8S/ 7W- 7C 3 S 11-30-64	--	7.3	5083	480 23.95 38	160 13.16 21	598 26.00 41	10 0.26	0	377 6.18 10	1830 38.10 59	704 19.85 31	0	--	0.49	27	4291 1857		
8S/ 8W- 1L 1 S 11-30-64	--	7.1	1667	214 10.68 59	42 3.45 19	90 3.91 22	4 0.10 1	0	281 4.61 25	449 9.35 51	152 4.29 23	13 0.21 1	0.4	0.07	24	1223 707		
8S/ 8W-12L 4 S 11-30-64	--	7.4	1613	208 10.38 56	42 3.45 19	104 4.52 24	4 0.10 1	0	354 5.80 32	425 8.85 48	132 3.72 20	0	0.5	0.10	33	1191 692		
5-13-65	67	7.5	1666	--	--	--	--	0	354 5.80	--	138 3.89	--	--	--	--	1123		
8S/ 8W-12P 2 S 5-14-65	66	7.3	2096	260 12.97 54	60 4.93 21	137 5.96 25	4 0.10	0	390 6.39 26	623 12.97 53	182 5.13 21	0	0.3	0.24	29	1599 896		

TABLE E-1

ANALYSES OF GROUND WATER  
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	TDS Evap 100°C Evap 105°C as Computed CaCl <sub>2</sub>
SAN JUAN HYDRO SUBUNIT				Z0180				SAN JUAN HYDRO UNIT				Z0100				
8S/ 8W-14H 2 S 11-30-64	--	7.2	1918	312 15.57 72	13 1.07 5	114 4.96 23	6 0.15 1	0	353 5.79 27	500 10.41 48	185 5.22 24	0.5 0.26 1	0.06	19	1401 1339	833
8S/ 8W-14H 4 S 5-13-65	69	7.2	2163	274 13.67 53	66 5.43 21	156 6.78 26	4 0.10	0	438 7.18 28	641 13.35 52	190 5.36 21	0 0.4	0.11	19	1676 1566	956
8S/ 8W-14Q 1 S 6-28-65	--	7.3	4840	481 24.00 43	140 11.51 21	470 20.44 36	6 0.15	0	432 7.08 13	1096 22.82 41	923 26.03 47	-- 0	--	21	3550 3349	1777

TABLE E-1

ANALYSES OF GROUND WATER  
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per percent		million reactance value				Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Sulfide	Fluoride	Barium	Silica	Trace metals	Excess Boron	Excess Copper
Date sampled				Co	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	B	F	Ba	Si	As	Br	Cu
SAN CLEMENTE HYDRO SUBUNIT																			
Z0100																			
SAN JUAN HYDRO UNIT																			
Z0100																			
9S/ 7W-10A 1 S 11-23-64	77	7.4	780	54 2.69 32	26 2.14 25	81 3.52 42	3	0	190 3.11 38	114 2.37 29	99 2.79 34	0.0	0.14	0.6	--	630 471			242
9S/ 7W-10A 2 S 11-23-64	--	7.4	920	65 3.24 33	26 2.14 22	99 4.30 44	3	0	192 3.15 33	134 2.79 29	128 3.61 38	0.0	0.20	0.4	--	610 550			269
9S/ 7W-10A 3 S 11-23-64	78	7.2	880	61 3.04 33	29 2.38 26	84 3.65 40	4	0	203 3.33 37	153 3.19 35	89 2.51 28	0.0	0.14	0.4	--	572 520			271
9S/ 7W-10H 1 S 11-23-64	77	7.4	760	46 2.30 30	24 1.97 25	78 3.39 44	4	0	212 3.47 45	94 1.96 26	78 2.20 29	0.0	0.15	0.2	--	466 429			214

TABLE E-1  
ANALYSES OF GROUND WATER  
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per percent					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlor- ide Cl	Ni- trate NO <sub>3</sub>	Fluor- ide F	Boron B	Sili- ca SiO <sub>2</sub>	TDS Evap (Boe) Evap (DSC) as Computed CaCO <sub>3</sub>	Total Hardness as CaCO <sub>3</sub>	
Date sampled																		
SAN MATEO HYDRO SUBUNIT				Z01D0										Z0100				
SAN JUAN HYDRO UNIT				Z0100														
95/ 7W-11A 1 S 11-23-64	68	6.7	720	61 3.04 39	20 1.64 21	69 3.00 39	1 0.03	0	191 3.13 41	95 1.98 26	82 2.31 30	10 0.16 2	0.1	0.12	--	464 432 234		
95/ 7W-14G 1 S 11-23-64	67	7.7	940	73 3.64 37	31 2.55 26	84 3.65 37	2 0.05 1	0	219 3.59 37	126 2.62 27	119 3.36 34	12 0.19 2	0.1	0.07	--	622 555 310		



TABLE E-1  
ANALYSES OF GROUND WATER  
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million percent reactance value					Mineral constituents in parts per million				
				Calcium	Magne- sium	Sodium	Potas- sium	Carbon- ate	Bicar- bonate	Sulfate	Chlo- ride	Ni- trate	Fuo- ride	Burce B	Swa- to S <sub>2</sub> O <sub>3</sub>	Exp. B <sub>2</sub> O <sub>3</sub>	Exp. B <sub>2</sub> O <sub>3</sub>	Exp. B <sub>2</sub> O <sub>3</sub>
Date sampled				Co	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F					
SANTA MARGARITA HYDRO UNIT																		
MURRIETA HYDRO SUBUNIT				Z02C0					Z02C1					Z02C2				
WILDOMAR HYDRO SUBAREA				Z02C0					Z02C1					Z02C2				
6S/ 4W-34J 2 S 12- 2-64	--	7.8	1271	100 4.99 37	34 2.80 21	125 5.44 41	7 0.18 1	0	129 2.11 16	377 7.85 58	127 3.58 26	1 0.02	1.6	0.18	5	880 841		390
MURRIETA HYDRO SUBAREA				Z02C2					Z02C2					Z02C2				
7S/ 3W-14J 5 S 12- 2-64	120	9.1	1269	8 0.40 4	0	243 10.57 95	4 0.10 1	26 0.87 8	18 0.30 3	17 0.35 3	342 9.64 86	3 0.05	5.0	3.50	60	700 720		20
7S/ 3W-21D 2 S 12- 2-64	--	7.9	697	64 3.19 46	15 1.23 18	58 2.52 36	1 0.03	0	245 4.02 57	23 0.48 7	81 2.28 32	16 0.26 4	0.4	0.05	50	442 429		221
8S/ 3W-12C 1 S 12- 2-64	--	7.6	298	17 0.85 32	4 0.33 13	33 1.43 54	1 0.03 1	0	93 1.52 56	5 0.10 4	32 0.90 33	11 0.18 7	0.3	0.04	36	193 187		59
8S/ 3W-12N 5 S 12- 2-64	--	7.9	1019	51 2.54 26	19 1.56 16	132 5.74 58	2 0.05 1	0	225 3.69 37	88 1.83 18	159 4.48 45	3 0.05	0.5	0.18	21	590 586		205
8S/ 3W-13K 1 S 6- 2-65	64	7.4	799	44 2.20 29	15 1.23 16	94 4.09 54	2 0.05 1	0	188 3.08 41	59 1.23 16	110 3.10 41	8 0.13 2	0.3	0.07	--	445 425		172

TABLE E-1  
ANALYSES OF GROUND WATER  
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million								
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	TDS Evap 180°C Evap 103°C as Computed CaCO <sub>3</sub>						
MURRIETA HYDRO SUBUNIT																						
FRENCH HYDRO SUBAREA																						
Z02C0				Z02C3															Z0200			
6S/ 2W-28G 3 S 12- 2-64	68	7.6	975	79	19	93	3	0	189	168	110	4	0.7	0.09	47	642	275					
				3.94	1.56	4.04	0.08	3.10	3.50	3.10	0.06											
				41	16	42	1	32	36	32	1							617				
DOMENIGONI HYDRO SUBAREA																						
6S/ 2W- 3R 2 S 12- 2-64	--	7.2	1390	128	37	116	5	0	311	215	181	9	0.5	0.12	53	938	472					
				6.39	3.04	5.04	0.13	5.10	4.48	5.10	0.15											
				44	21	35	1	34	30	34	1							898				
6S/ 2W-10D 2 S 12- 2-64	--	7.6	1180	103	30	102	5	0	279	181	128	20	0.5	0.11	52	787	381					
				5.14	2.47	4.43	0.13	4.57	3.77	3.61	0.32											
				42	20	36	1	37	31	29	3							759				
DIAMOND HYDRO SUBAREA																						
6S/ 1W- 4J 1 S 4-29-65	82	7.8	613	44	13	62	3	--	183	65	51	20	0.4	0.07	--	384	164					
				2.20	1.07	2.70	0.08	3.00	1.35	1.44	0.32											
				36	18	45	1	49	22	24	5							348				
9-29-65	74	7.7	595	45	12	60	3	0	181	65	52	20	0.4	0.11	--	361	162					
				2.25	0.99	2.61	0.08	2.97	1.35	1.47	0.32											
				38	17	44	1	49	22	24	5							346				
SANTA MARGARITA HYDRO UNIT																						
Z02C0				Z02C3															Z0200			

TABLE E-1

ANALYSES OF GROUND WATER  
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million								
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fugitive F	Boron B	Silica SiO <sub>2</sub>	I.D.S. Extr-Roc Extr-25°C as Calc/l	Total Dissolved Solids	
SANTA MARGARITA HYDRO UNIT																		
AULD HYDRO SUBUNIT				Z02D0						Z0200								
AULD HYDRO SUBAREA				Z02D1						Z0200								
7S/ 2W-10D 1 S 12- 2-64	--	7.9	1407	78 3.89	39 3.21	166 7.22	2 0.05	0	339 5.56	157 3.27	198 5.58	10 0.16	0.7	0.12	40	872	355	
7S/ 3W-24A 1 S 12- 2-64	--	7.8	508	25 1.25	6 0.49	67 2.91	2 0.05	0	136 2.23	25 0.52	65 1.83	14 0.23	0.8	0.14	25	300	87	
GERTRUDIS HYDRO SUBAREA				Z02D2						Z0200								
7S/ 3W-35B 1 S 12- 2-64	--	7.8	620	16 0.80	1 0.08	108 4.70	2 0.05	0	121 1.98	34 0.71	107 3.02	2 0.03	0.8	0.49	17	343	44	
TUCALOTA HYDRO SUBAREA				Z02D4						Z0200								
7S/ 1W-12H 1 S 12- 2-64	--	7.0	1132	86 4.29	40 3.29	91 3.96	6 0.15	0	272 4.46	185 3.85	126 3.55	1 0.02	0.8	0.08	47	786	379	
				37	28	34	1		38	32	30					717		

TABLE E-1

ANALYSES OF GROUND WATER  
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million							Mineral constituents in parts per million						
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlor- ide Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	I.D.S. Evap 180°C Evap 105°C as Computed CaCl <sub>2</sub>	Total hardness as CaCl <sub>2</sub>
PECHANGA HYDRO SUBUNIT Z02E0																	
PECHANGA HYDRO SUBAREA Z02E2																	
SANTA MARGARITA HYDRO UNIT Z0200																	
85/ 2W-20B 4 S 12- 2-64	--	7.7	1093	87 4.34 39	22 1.81 16	115 5.00 44	4 0.10 1	0	246 4.03 36	191 3.98 35	116 3.27 29	0	0.5	0.15	22	660 679	308
85/ 2W-28M 1 S 12- 2-64	69	8.0	439	10 0.50 13	2 0.16 4	76 3.30 83	1 0.03 1	0	93 1.52 40	15 0.31 8	70 1.97 52	0	5.3	0.66	12	247 238	33

TABLE E-1

ANALYSES OF GROUND WATER  
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boro- n B	SiO <sub>2</sub>	TDS Evap Res- idue Evap Res- idue as CaCO <sub>3</sub>	
WILSON HYDRO SUBUNIT				Z02FO				SANTA MARGARITA HYDRO UNIT				Z0200					
LANCASTER HYDRO SUBAREA				Z02F1													
8S/ 1E- 7Q 4 S	65	7.7	1547	76	27	217	6	0	329	214	208	2	1.3	0.36	36	958	301
12- 2-64				3.79	2.22	9.44	0.15		5.39	4.46	5.87	0.03				949	
				24	14	61	1		34	28	37						



TABLE E-1  
ANALYSES OF GROUND WATER  
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				Mineral constituents in parts per million					
				Calcium	Magne-sium	Sodium	Potas-sium	Carbon-ate	Bicar-bonate	Sulfate	Chlo-ride	Ni-trate	Fluo-ride	Boron	SiO <sub>2</sub>	Total Hardness as CaCO <sub>3</sub>	
Date sampled				Ca	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>	Computed CaCO <sub>3</sub>	
ANZA HYDRO SUBUNIT																	
LOWER COAHUILA HYDRO SUBAREA																	
7S/ 2E-32J 1 S 12- 3-64	--	7.5	364	15 0.75 23	2 0.16 5	53 2.30 70	3 0.08 2	0	92 1.51 44	18 0.37 11	53 1.49 44	2 0.03 1	0.4	0.02	23	214 215	46
UPPER COAHUILA HYDRO SUBAREA																	
7S/ 2E-13D 1 S 12- 3-64	--	7.3	553	53 2.64 51	11 0.90 17	34 1.48 29	5 0.13 3	0	129 2.11 40	38 0.79 15	34 0.96 18	89 1.44 27	0.3	0.04	35	415 363	177
7S/ 2E-26B 1 S 12- 3-64	--	7.4	293	29 1.45 52	5 0.41 15	20 0.87 31	3 0.08 3	0	106 1.74 60	10 0.21 7	32 0.90 31	2 0.03 1	0.3	0.03	30	180 183	93
ANZA HYDRO SUBAREA																	
7S/ 3E-20J 1 S 12- 3-64	--	7.6	734	73 3.64 51	15 1.23 17	49 2.13 30	6 0.15 2	0	143 2.34 32	139 2.89 39	69 1.95 27	9 0.15 2	0.5	0.02	41	492 472	244

TABLE E-1  
ANALYSES OF GROUND WATER  
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in						parts per million equivalents per million reactance value				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlor- ide Cl	Ni- trate NO <sub>3</sub>	Fluor- ide F	Boron B	Sili- ca SiO <sub>2</sub>	Total Evap. Resid- ues by Computed Analysis			
AGUANGA HYDRO SUBUNIT REDEC HYDRO SUBAREA				Z02H0		Z02H3		SANTA MARGARITA HYDRO UNIT										Z0200	
8S/ 1E-19Q 2 S 12- 2-64	--	7.2	1281	113 5.64 41	29 2.38 17	127 5.52 40	4 0.10 1	0	298 4.88 36	261 5.43 40	117 3.30 24	2 0.03	0.8	0.17	34	888 834	401		

TABLE E-1  
ANALYSES OF GROUND WATER  
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reactance value				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	SiO <sub>2</sub>	TDS Evap 100°C as Computed CaCO <sub>3</sub>	
OAKGROVE HYDRO SUBUNIT				SANTA MARGARITA HYDRO UNIT													
LOWER CULP HYDRO SUBAREA				Z0200													
Z0210				Z0211													
95/ 1E-12A 1 S	--	7.6	1250	123	32	104	6	0	330	261	84	20	0.6	0.09	40	863	439
12- 3-64				6.14	2.63	4.52	0.15	5.41	5.41	5.43	2.37	0.32				833	
				46	20	34	1	40	40	40	18	2					
CHIHUAHUA HYDRO SUBAREA				Z0214													
95/ 3E-16A 1 S	--	7.5	501	50	14	33	3	0	238	12	35	5	0.4	0	43	306	183
12- 3-64				2.50	1.15	1.43	0.08	3.90	3.90	0.25	0.99	0.08				312	
				48	22	28	2	75	75	5	19	2					

**TABLE E-1**  
ANALYSES OF GROUND WATER  
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Date sampled	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per percent					Mineral constituents in parts per million				
					Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Baron B	Sili- co SiO <sub>2</sub>	TDSS Evap Residue at 100°C Computed	Hardness as CaCO <sub>3</sub>	
BONSALL HYDRO SUBUNIT																			
MISSION HYDRO SUBAREA																			
Z03A0																			
Z03A1																			
SAN LUIS REY HYDRO UNIT																			
Z0300																			
11S/ 4W- 4K 1 S 6-15-65		65	7.9	2570	176 8.78	78 6.41	251 10.91	0.23	9	0	242 3.97	325 6.77	696 19.63	--	0.5	0.36	--	1740	760
11S/ 4W- 4N 1 S 11-19-64		67	8.0	1240	137 6.84 54	14 1.15 9	105 4.57 36	0.13 1	5	0	307 5.03 40	99 2.06 16	192 5.41 43	6 0.10 1	0.1	0.17	--	736 709	400
11S/ 4W- 4P 2 S 11-19-64		--	7.9	1730	129 6.44 39	56 4.61 28	125 5.44 33	3 0.08	3	0	195 3.20 19	150 3.12 19	333 9.39 57	49 0.79 5	0.1	0.19	--	1068 941	553
11S/ 4W- 5K 1 S 11-30-64		--	7.4	3360	415 20.71 49	137 11.27 27	225 9.78 23	13 0.33 1	13	0	244 4.00 9	260 5.41 13	1168 32.94 78	0.0 0.0 0	0.4	0	--	2580 2338	1600
7-22-65		--	8.1	4040	408 20.36 50	143 11.76 29	200 8.70 21	11 0.28 1	11	0	237 3.88 9	300 6.25 14	1196 33.73 77	0.0 0.0 0	0.5	0.10	--	2492 2375	1607
11S/ 4W- 6R 4 S 11-19-64		--	7.7	4900	331 16.52 29	141 11.60 20	655 28.48 50	12 0.31 1	12	0	496 8.13 14	419 8.72 15	1418 39.99 70	0.0 0.0 0	0.1	0.54	--	3672 3220	1407
11S/ 4W- 8E 1 S 11-19-64		--	7.8	1850	301 15.02 56	55 4.52 17	167 7.26 27	8 0.20 1	8	0	301 4.93 25	222 4.62 24	357 10.07 51	0.0 0.0 0	0.2	0.20	--	1190 1258	978
11S/ 4W- 8K 1 S 11-19-64		--	7.9	1340	122 6.09 43	15 1.23 9	158 6.87 48	3 0.08 1	3	0	239 3.92 28	116 2.42 17	266 7.50 53	14 0.23 2	0.6	0.80	--	872 813	366

TABLE E-1

ANALYSES OF GROUND WATER  
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	SiO <sub>2</sub>	TDS Evap. Residue at 180°C Exp. 100°C as CaCO <sub>3</sub>	
BONSALL HYDRO SUBUNIT																	
MISSION HYDRO SUBAREA																	
Z03A0				Z03A1				Z0300									
SAN LUIS REY HYDRO UNIT																	
11S/ 4W- 8N 2 S 11-23-64	--	7.9	2500	152 7.58 29	61 5.02 19	310 13.48 52	0.05	2	0	313 5.13 20	193 4.02 16	592 16.69 65	0.0	0.2	0.35	--	1480 1464
11S/ 4W- 8N 3 S 11-23-64	--	8.0	1950	152 7.58 35	71 5.84 27	190 8.26 38	8 0.20 1	0	288 4.72 22	254 5.29 24	412 11.62 54	0.0	0.2	0.12	--	--	1276 1229
11S/ 4W-18C 8 S 11-30-64	--	7.6	2520	226 11.28 41	59 4.85 18	250 10.87 40	13 0.33 1	0	371 6.08 21	420 8.74 30	500 14.10 49	0.6 0.01	0.5	0.40	--	--	1896 1652
7-22-65	--	7.7	2610	210 10.48 38	63 5.18 19	265 11.52 42	10 0.26 1	0	374 6.13 21	425 8.85 31	484 13.65 48	0.1	0.4	0.40	--	--	1816 1642
11S/ 4W-18G 2 S 6-15-65	--	7.9	2620	230 11.48	92 7.57	190 8.26	10 0.26	0	288 4.72	450 9.37	604 17.03	--	0.5	0.10	--	--	1870 953
11S/ 4W-18L 3 S 11-23-64	68	7.1	2150	224 11.18 44	79 6.50 25	178 7.74 30	8 0.20 1	0	293 4.80 17	562 11.70 41	418 11.79 42	0.0	0.2	0.17	--	--	1712 1613
6-15-65	--	7.7	2150	221 11.03	80 6.58	150 6.52	9 0.23	0	312 5.11	500 10.41	308 8.69	--	0.5	0.14	--	--	1660 881
11S/ 4W-18L 4 S 11-24-64	68	7.5	2500	234 11.68 41	77 6.33 22	230 10.00 35	9 0.23 1	0	320 5.24 19	280 5.83 21	599 16.89 60	0.0	0.1	0.10	--	--	1876 1587



ANALYSES OF GROUND WATER  
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million				parts per million			
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica
Date sampled				Ca	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>
SAN LUIS REY HYDRO UNIT															
BONSALL HYDRO SUBUNIT				Z03A0				Z03A1				Z0300			
MISSION HYDRO SUBAREA				Z03A0				Z03A1				Z0300			
11S/ 5W-13L 1 S 5-10-65	--	7.4	2750	282 14.07 44	86 7.07 22	240 10.84 33	0.26 1	10	0	263 4.31 13	497 10.35 32	624 17.60 55	0.1	0.12	2146 1869
11S/ 5W-23E 5 S 11-23-64	67	7.7	17000	597 29.79 14	253 20.81 10	3570 155.22 75	60 1.53 1	0	0	386 6.33 3	894 18.61 9	6560 184.99 88	0.1	0.76	13930 12125
BONSALL HYDRO SUBAREA				Z03A2				Z03A1				Z0300			
10S/ 3W-12C 1 S 11-24-64	--	8.0	1970	134 6.69 30	79 6.50 29	203 8.83 40	4 0.10	0	0	529 8.67 40	256 5.33 24	250 7.05 32	0.2	0.25	1274 1241
10S/ 3W-12F 1 S 11-24-64	68	8.0	2000	141 7.04 31	78 6.41 29	203 8.83 39	4 0.10	0	0	530 8.69 39	257 5.35 24	255 7.19 33	0.2	0.25	1284 1248
10S/ 3W-20P 3 S 11-23-64	--	7.5	2600	200 9.98 33	68 5.59 18	325 14.13 46	35 0.89 3	0	0	478 7.83 42	441 9.18 49	46 1.50 7	0.3	0.24	2018 1366

TABLE E-1  
ANALYSES OF GROUND WATER  
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million reactance value				Mineral constituents in parts per million				
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- co SiO <sub>2</sub>	Total I.D.S. Extr 180°C as IC50°C Computed CaCO <sub>3</sub>
MONSERATE HYDRO SUBUNIT				Z03B0				Z03B1				Z0300				
PALA HYDRO SUBAREA																
9S/ 2W-31Q 1 S 11-24-64	--	7.5	1480	82 4.09 27	89 7.32 48	87 3.78 25	6 0.15 1	0	276 4.52 30	347 7.22 47	123 3.47 23	2 0.03	0.2	0.18	--	571 1072 872
PAUMA HYDRO SUBAREA																
10S/ 1W-16H 1 S 11-24-64	74	7.8	505	35 1.75 33	15 1.23 23	52 2.26 42	3 0.08 2	0	171 2.80 54	46 0.96 18	50 1.41 27	1 0.02	0.2	0.23	--	350 286 149

TABLE E-1  
ANALYSES OF GROUND WATER  
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent					Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Iron Fe	Trace Evap as Compd		
WARNER HYDRO SUBUNIT				SAN LUIS REY HYDRO UNIT										Z0300				
WARNER HYDRO SUBAREA				Z03C1					Z0300									
9S/ 2E-36N 1 S 12- 3-64	--	8.1	892	86 4.29 44	23 1.89 19	80 3.48 36	3 0.08 1	0	396 6.49 68	49 1.02 11	70 1.97 21	2 0.03	0.3	0	39 5.7	520 547		
9S/ 2E-36Q 1 S 12- 3-64	--	7.4	507	35 1.75 36	12 0.99 20	45 1.96 40	6 0.15 3	0	114 1.87 38	100 2.08 43	33 0.93 19	0	0.8	0.04	37 300 325	137		
10S/ 2E-26A 1 S 12- 3-64	65	7.8	428	38 1.90 44	10 0.82 19	36 1.57 36	2 0.05 1	0	150 2.46 58	54 1.12 26	21 0.59 14	5 0.08 2	0.3	0.10	35 250 275	136		
10S/ 3E-25D 1 S 12- 3-64	120	6.6	500	2 0.10 2	0 0.58 2	95 4.13 96	2 0.05 1	0	36 0.59 14	137 2.85 68	25 0.71 17	1 0.02	5.0	0.70	88 355 373	5		
10S/ 3E-26L 2 S 12- 3-64	--	7.9	503	40 2.00 39	9 0.74 14	53 2.30 45	3 0.08 2	0	230 3.77 74	9 0.19 4	37 1.04 20	5 0.08 2	0.3	0.05	30 270 299	137		
10S/ 3E-29J 2 S 12- 3-64	68	8.0	534	37 1.85 35	7 0.58 11	64 2.78 53	2 0.05 1	0	196 3.21 60	48 1.00 19	40 1.13 21	2 0.03 1	0.4	0.05	37 339 354	122		
11S/ 3E- 3N 1 S 12- 3-64	--	8.0	264	18 0.90 34	6 0.49 19	28 1.22 46	1 0.03 1	0	119 1.95 76	7 0.15 6	15 0.42 16	4 0.06 2	0.6	0	25 150 163	70		
11S/ 3E-18P 1 S 12- 3-64	--	7.4	349	26 1.30 38	9 0.74 22	29 1.26 37	3 0.08 2	0	117 1.92 57	8 0.17 5	26 0.73 22	32 0.52 16	0.2	0	48 240 259	102		

TABLE E-1  
ANALYSES OF GROUND WATER  
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million					Mineral constituents in parts per million							
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	TDS Evap 180°C Evap 105°C Computed CaCO <sub>3</sub>
VISTA HYDRO SUBUNIT				CARLSBAD HYDRO UNIT										Z0400		
CARLSBAD HYDRO SUBAREA				Z04B1										Z04B0		
11S/ 4W-25E 1 S 11-19-64	--	7.9	1710	72 3.59 20	91 7.48 41	162 7.04 39	4 0.10 1	0	305 5.00 28	189 3.93 22	312 8.80 49	0.2	0.27	--	1098 995	554
11S/ 4W-33F 1 S 11-19-64	66	7.1	2300	122 6.09 26	60 4.93 21	275 11.96 52	4 0.10	0	299 4.90 13	773 16.09 43	571 16.10 43	0.2	0.59	--	1428 1953	551

TABLE E-1  
ANALYSES OF GROUND WATER  
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalent reactance value					Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	Iron Fe	Copper Cu	Manganese Mn
CARLSBAD HYDRO UNIT Z04C0																		
AGUA HEDIONDA HYDRO SUBUNIT Z04C0																		
AGUA HEDIONDA HYDRO SUBAREA Z04C1																		
12S/ 4W-10H 3 S 11-19-64	--	8.1	2520	174 8.68 31	88 7.24 26	282 12.26 43	6 0.15 1	0	364 5.97 22	74 1.54 6	718 20.25 73	0.0	0.4	0.34	--	1732 1522	797	



TABLE E-1  
ANALYSES OF GROUND WATER  
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in						parts per million equivalents per percent				Mineral constituents in parts per million								
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Ferric Fe	Boron B	Silica SiO <sub>2</sub>	TDS Evaluated as CaCO <sub>3</sub>						
SAN MARCOS HYDRO SUBUNIT				CARLSBAD HYDRO UNIT																		
BATIQUEITOS HYDRO SUBAREA				Z0400																		
Z04E0				Z04E1																		
12S/ 4W-26H 1 S 11-19-64	--	7.4	1340	53 2.64 19	26 2.14 15	210 9.13 65	4 0.10 1	0	224 3.67 26	93 1.94 14	298 8.40 60	0.0	0.6	0.32	--	822 795	239					
Z04E2				Z0402																		
SAN MARCOS HYDRO SUBAREA																						
12S/ 2W-17M 1 S 1-26-65	--	7.2	1513	76 3.79 26	56 4.61 32	134 5.83 41	4 0.10 1	0	103 1.69 12	132 2.75 19	304 8.57 61	71 1.15 8	0.6	0.04	--	960 828	420					

TABLE E-1  
ANALYSES OF GROUND WATER  
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million reactance value				Mineral constituents in parts per million							
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Flu- oride F	Fe ppm	Si ppm	Hardness equiv. 100°C in CaCO <sub>3</sub>			
ESCONDIDO HYDRO SUBUNIT				CARLSBAD HYDRO UNIT															
SAN ELIJO HYDRO SUBAREA				Z0400															
Z04F0				Z04F1															
12S/ 2W-31D 1 S	--	7.6	2253	117	69	276	3	0	381	280	400	1	0.7	0.59	--	1430	576		
1-27-65				5.84	5.67	12.00	0.08		6.24	5.83	11.28	0.02				1335			
ESCONDIDO HYDRO SUBAREA				Z04F2															
12S/ 2W-16N 1 S	--	7.5	1940	78	53	264	6	0	319	244	300	60	0.6	0.08	--	1227	413		
1-26-65				3.89	4.36	11.48	0.15		5.23	5.08	8.46	0.97				1162			
12S/ 2W-20G 2 S	--	7.1	7273	479	358	575	13	0	644	263	2188	37	0.7	20.00	--	5335	2669		
1-26-65				23.90	29.44	25.00	0.33		10.56	5.48	61.70	0.60				4250			
12S/ 2W-20H 5 S	--	7.7	3182	91	89	--	--	--	629	--	625	--	--	0.25	--	593			
1-26-65				4.54	7.32				10.31		17.63								
12S/ 2W-20J 1 S	--	7.8	2284	75	54	328	3	0	450	127	430	38	0.9	0.21	--	1312	409		
1-26-65				3.74	4.44	14.26	0.08		7.38	2.64	12.13	0.61				1277			
12S/ 2W-20J10 S	--	7.5	4299	153	126	606	5	0	732	247	950	57	1.2	0.22	--	2610	900		
1-26-65				7.63	10.36	26.35	0.13		12.00	5.14	26.19	0.92				4502			
12S/ 2W-20K 1 S	--	7.1	7874	585	406	563	12	0	637	197	2560	24	0.6	8.00	--	4970	3132		
1-26-65				29.19	33.39	24.48	0.31		10.44	4.10	72.19	0.39				4669			

TABLE E-1  
ANALYSES OF GROUND WATER  
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent				Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	Total Evap 180°C Evap 105°C as CaCO <sub>3</sub>
Date sampled																
ESCONDIDO HYDRO SUBUNIT																
ESCONDIDO HYDRO SUBAREA																
Z04F0																
CARLSBAD HYDRO UNIT																
Z0400																
Z04F2																
12S/ 2W-20K 2 S 1-26-65	--	7.1	534	24 1.20 26	15 1.23 27	49 2.13 46	3 0.08 2	0	64 1.05 22	24 0.50 11	90 2.54 54	38 0.61 13	0.5	0.01	--	357 275
12S/ 2W-20K 3 S 1-26-65	--	7.8	1026	35 1.75 17	43 3.54 35	105 4.57 46	6 0.15 1	0	204 3.34 33	145 3.02 30	122 3.44 34	15 0.24 2	0.5	0	--	570 572
12S/ 2W-20P 2 S 1-26-65	--	7.6	1556	87 4.34 29	52 4.28 29	139 6.04 41	5 0.13 1	0	171 2.80 19	52 1.08 7	360 10.15 70	29 0.47 3	0.7	0.03	--	970 809
12S/ 2W-20Q 2 S 1-26-65	--	7.2	2667	115 5.74 21	61 5.02 18	372 16.17 59	18 0.46 2	0	398 6.52 24	338 7.04 26	490 13.82 50	10 0.16 1	0.9	0.74	--	1710 1601
12S/ 2W-21D 2 S 1-26-65	--	7.7	1811	60 2.99 16	48 3.95 21	269 11.70 63	2 0.05 1	0	400 6.56 35	219 4.56 24	260 7.33 39	15 0.24 1	1.0	0.30	--	1110 1071
12S/ 2W-30N 2 S 1-27-65	--	7.8	1447	78 3.89 28	22 1.81 13	190 8.26 59	4 0.10 1	0	243 3.98 28	136 2.83 20	254 7.16 51	1 0.02	0.5	0.23	--	860 805

TABLE E-1  
ANALYSES OF GROUND WATER  
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million													
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlor- ide Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	Total Hardness Extrapolated to 105°C Computed							
SAN DIEGUITO HYDRO SUBUNIT Z05A0				SAN DIEGUITO HYDRO UNIT Z0500										SAN DIEGUITO HYDRO UNIT Z0500									
SAN DIEGUITO HYDRO SUBAREA Z05A1				SAN DIEGUITO HYDRO UNIT Z0500										SAN DIEGUITO HYDRO UNIT Z0500									
13S/ 3W-28N 2 S 3-26-65	--	7.5	1525	120 5.99 36	50 4.11 25	150 6.52 39	0.08	3	0	275 4.51 27	167 3.48 21	314 8.85 53	0.0	0.2	0.15	--	942 940	505					
13S/ 3W-32R 1 S 3- 4-65	70	7.9	1900	117 5.84 27	59 4.85 22	250 10.87 50	0.20	8	0	431 7.06 32	226 4.71 22	357 10.07 46	3 0.05	0.2	0.26	--	1290 1232	535					
13S/ 3W-33B 1 S 3- 4-65	--	7.5	1645	98 4.89 28	67 5.51 31	165 7.17 41	5	0.13	0	211 3.46 20	153 3.19 18	387 10.91 62	0.0	0.2	0.20	--	1246 979	520					
13S/ 3W-33D 1 S 3-25-65	68	7.8	2200	124 6.19 25	60 4.93 20	320 13.91 55	8	0.20	0	318 5.21 21	456 9.49 38	353 9.95 40	0.0	0.2	0.21	--	1558 1478	556					
13S/ 3W-33E 2 S 3- 4-65	68	7.9	2500	196 9.78 33	62 5.10 17	335 14.57 49	8	0.20	0	361 5.92 20	356 7.41 25	564 15.90 54	0.0	0.4	0.29	--	1786 1699	745					
13S/ 3W-33F 4 S 3- 4-65	69	7.7	3000	285 14.22 39	119 9.79 27	270 11.74 32	18	0.46	0	288 4.72 13	394 8.20 23	808 22.79 64	2 0.03	0.2	0.11	--	2350 2038	1201					
13S/ 3W-33L 3 S 3-25-65	--	7.5	2560	214 10.68 34	98 8.06 26	272 11.83 38	16	0.41	0	337 5.52 18	397 8.27 27	599 16.89 55	0.0	0.1	0.15	--	1738 1762	926					
13S/ 3W-33L 6 S 3- 4-65	--	7.7	1950	146 7.29 34	55 4.52 21	217 9.44 44	8	0.20	0	423 6.93 32	203 4.23 20	361 10.18 48	0.0	0.2	0.25	--	1250 1198	581					

TABLE E-1  
ANALYSES OF GROUND WATER  
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per percent			Mineral constituents in parts per million					
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	Total hardness as CaCO <sub>3</sub>	
Date sampled				Co	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	NO <sub>3</sub>	F	B	SiO <sub>2</sub>	Total hardness as CaCO <sub>3</sub>	
SAN DIEGO HYDRO SUBUNIT Z0500																	
SAN DIEGO HYDRO SUBAREA Z05A1																	
13S/ 3W-33M 2 S 7- 1-65	71	8.0	2742	264 13.17 49	16 1.32 5	285 12.39 46	9 0.23 1	--	221 3.62 13	419 8.72 32	527 14.86 55	2.1 0.03	0.4	0.10	--	1800 1631	725
13S/ 3W-33Q 1 S 3-25-65	--	7.3	6200	429 21.41 26	184 15.13 19	1005 43.70 54	43 1.10 1	0	379 6.21 8	681 14.18 18	2089 58.91 74	0.0	0.4	0.53	--	4420 4618	1828
13S/ 3W-33Q 3 S 3- 4-65	66	7.5	3000	52 2.59 8	58 4.77 14	595 25.87 77	22 0.56 2	0	110 1.80 5	145 3.02 9	1011 28.51 86	0.0	0.2	0.26	--	1956	368
14S/ 3W- 3D 1 S 3- 4-65	--	7.2	6200	611 30.49 37	216 17.76 22	780 33.91 41	7 0.18	0	251 4.11 5	898 18.70 23	2089 58.91 72	0.0	0.6	0.77	--	5160 4726	2414
14S/ 3W- 4N 1 S 3- 4-65	--	7.7	2700	222 11.08 36	86 7.07 23	285 12.39 40	3 0.08	0	269 4.41 15	301 6.27 21	684 19.29 64	7 0.11	0.4	0.40	--	2010	908
14S/ 3W- 4P 1 S 3- 4-65	--	7.2	4400	477 23.80 44	141 11.60 22	420 18.26 34	2 0.05	0	332 5.44 10	664 13.82 26	1181 33.30 63	18 0.29 1	0.2	0.37	--	3600	1771
14S/ 3W- 5F 1 S 3-19-65	--	7.5	3000	152 7.58 20	85 6.99 18	515 22.39 59	41 1.05 3	0	553 9.06 24	800 16.66 44	442 12.46 33	0.0	1.0	0.63	--	2196	729
14S/ 3W- 5K 2 S 3- 3-65	--	7.5	5000	325 16.22 28	106 8.72 15	730 31.74 55	33 0.84 1	0	243 3.98 7	573 11.93 21	1450 40.89 72	0.0	0.1	0.87	--	3610 3337	1248



TABLE E-1  
ANALYSES OF GROUND WATER  
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent				Mineral constituents in parts per million				
				Calcium Mg	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	TDS Evap 180°C as CaCO <sub>3</sub>
SAN DIEGUITO HYDRO SUBUNIT				SAN DIEGUITO HYDRO UNIT												
SAN DIEGUITO HYDRO SUBAREA				Z05A0				Z05A1				Z0500				
14S/ 3W- 5N 1 S 3-19-65	--	7.8	3000	108 5.39 16	33 2.71 8	570 24.78 74	31 0.79 2	0	480 7.87 23	210 4.37 13	762 21.49 64	0.0	0.2	0.60	--	1848 1951
14S/ 3W- 6P 1 S 3-18-65	--	8.0	12400	273 13.62 7	224 18.42 10	3400 147.83 81	70 1.79 1	0	1479 24.24 14	889 18.51 10	4820 135.92 76	2 0.03	0.1	3.50	--	9408 10409 1603
14S/ 3W- 7C 3 S 2-26-65	--	7.7	8000	206 10.28 10	133 10.94 11	1820 79.13 78	50 1.28 1	0	964 15.80 16	610 12.70 13	2550 71.91 72	2 0.03	0.4	1.85	--	5620 5847 1062
14S/ 3W- 7C 6 S 3-18-65	68	8.2	9200	164 8.18 7	129 10.61 9	2250 97.83 83	75 1.92 2	0	1027 16.83 14	832 17.32 14	3041 85.76 72	0.0	0.8	2.00	--	7102 6999
14S/ 3W- 7E 2 S 3-17-65	68	7.5	5000	170 8.48 14	109 8.96 15	980 42.61 70	20 0.51 1	0	228 3.74 6	724 15.07 25	1450 40.89 68	0.0	0.6	3.90	--	3610 3569 673
14S/ 3W- 7J 1 S 3-1-65	--	7.7	725	54 2.69 34	16 1.32 17	88 3.83 49	1 0.03	0	215 3.52 46	60 1.25 16	103 2.90 38	4 0.06 1	0.2	0.28	--	440 432 201
14S/ 3W- 7L 1 S 3-24-65	--	8.0	2225	196 9.78 38	35 2.88 11	305 13.26 51	6 0.15 1	0	81 1.33 5	145 3.02 12	741 20.90 83	1 0.02	0.1	0.25	--	1496 1469 634
14S/ 3W- 7L 4 S 3-1-65	--	7.4	2450	214 10.68 38	63 5.18 18	280 12.17 43	8 0.20 1	0	300 4.92 17	478 9.95 35	486 13.71 48	0.0	0.4	0.50	--	1820 1677 744

TABLE E-1  
ANALYSES OF GROUND WATER  
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reactance value				Mineral constituents in parts per million			
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Fluoride	Boron	Silica	Total Evaporable Solids as Computed
Date sampled				Ca	Mg	Na	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	F	B	SiO <sub>2</sub>	CO <sub>2</sub>
SAN DIEGUITO HYDRO SUBUNIT															
SAN DIEGUITO HYDRO SUBAREA				Z05AO				Z05AI				Z0500			
14S/ 3W- 7L 5 S 3- 1-65	--	7.2	2800	341 17.02 49	70 5.76 17	263 11.44 33	0	7 0.18 1	0	309 5.06 15	631 13.14 39	560 15.79 46	0.4	0.48	--
14S/ 3W- 7M 3 S 3- 1-65	62	8.0	3500	222 11.08 25	115 9.46 21	545 23.70 52	38 0.97 2	0	377 6.18 14	514 10.70 24	972 27.41 62	--	1.00	--	2758 1028 2599
14S/ 3W- 7P 1 S 3- 1-65	--	7.8	1950	118 5.89 27	32 2.63 12	300 13.04 60	12 0.31 1	0	190 3.11 14	121 2.52 12	568 16.02 74	0.1	0.50	--	1450 426 1246
14S/ 3W- 7P 4 S 3- 2-65	--	7.4	1925	174 8.68 42	43 3.54 17	150 8.26 40	5 0.13 1	0	91 1.49 8	91 1.89 10	571 16.10 82	0.2	0.28	--	1490 611 1130
14S/ 3W- 7P 6 S 3- 2-65	--	7.9	1900	120 5.99 28	58 4.77 23	230 10.00 47	14 0.36 2	0	348 5.70 27	199 4.14 20	390 11.00 53	0.1	0.45	--	1236 538 1183
14S/ 3W- 8M 2 S 3- 1-65	--	7.0	425	19 0.95 20	6 0.49 10	74 3.22 69	1 0.03 1	0	84 1.38 30	25 0.52 11	80 2.26 50	0.2	0.17	--	304 72 271
14S/ 4W- 1K 1 S 2-25-65	70	7.8	2250	132 6.59 27	9 0.74 3	394 17.13 69	9 0.23 1	0	111 1.82 7	297 6.18 25	577 16.27 67	0.8	2.46	--	1474 367 1476
14S/ 4W- 1Q 1 S 3-24-65	--	7.3	19500	942 47.01 16	287 23.60 8	5100 221.75 75	120 3.07 1	0	138 2.26 1	1436 29.90 10	9170 258.59 89	0.8	5.25	--	17400 3533 17129

TABLE E-1

SAN DIEGUITO HYDRO SUBUNIT SAN DIEGUITO HYDRO SUBAREA				Z05A0		Z05A1		SAN DIEGUITO HYDRO UNIT					Z0500				
14S/ 4W-1R 4 S 3-17-65	70	7.4	4500	375 18.71 32	32 2.63 4	835 36.31 62	35 0.89 2	0	137 2.25 4	842 17.53 30	1344 37.90 66	0.0	1.0	2.26	--	3482 3534	1068
14S/ 4W-11J 2 S 2-25-65	--	7.9	28000	3186 158.98 39	294 24.18 6	5200 226.10 55	70 1.79	0	64 1.05	1340 27.90 7	13634 384.48 93	0.0	0.1	12.70	--	27402 23768	9165
14S/ 4W-12H 1 S 3-17-65	68	4.4	25000	393 19.61 6	550 45.23 14	6020 261.75 79	140 3.58 1	0	0	2536 52.80 16	9750 274.95 84	0.0	0.4	3.82	--	19960 19595	3245

TABLE E-1  
ANALYSES OF GROUND WATER  
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per million reactance value			Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Sulfide S <sup>-2</sup>	Iron Fe
Date sampled																
SOLEDAD HYDRO SUBUNIT																
Z06A0																
145/ 3W-19Q 1 S 11-19-64	--	7.8	2000	152 7.58 35	58 4.77 22	210 9.13 42	3 0.08	0	252 4.13 19	283 5.89 28	385 10.86 51	22 0.35 2	0.8	0.33	--	1578 1238
145/ 3W-20L 2 S 11-19-64	65	7.8	1360	84 4.19 30	43 3.54 25	145 6.30 45	2 0.05	0	243 3.98 29	193 4.02 29	206 5.81 42	0.0	0.5	0.29	--	906 387 793

TABLE E-1

ANALYSES OF GROUND WATER  
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent			million value			Mineral constituents in parts per million		
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Barium	Silica	Total dissolved solids
Date sampled				Cc	Mg	No	K	CO <sub>3</sub>	HCO <sub>3</sub>	SO <sub>4</sub>	Cl	N-3	F	B	SiO <sub>2</sub>	Compd
SAN DIEGO HYDRO UNIT																
LOWER SAN DIEGO HYDRO SUBUNIT				Z0700												
MISSION SAN DIEGO HYDRO SUBAREA				Z07A0												
16S/ 2W- 9B 1 S 11-18-64				106 5.29 22	85 6.99 30	260 11.30 48	0.05	2	0	465 7.62 32	248 5.16 21	390 11.00 46	14 0.23 1	--	--	1522 1334
16S/ 2W- 9B 2 S 11-18-64				283 14.12 36	105 8.64 22	370 16.09 41	6	0	0	482 7.90 21	378 7.87 20	798 22.50 59	10 0.16 0	0.37	--	2196 2187
16S/ 2W- 9C 9 S 6- 3-65				75 3.74 16	89 7.32 31	285 12.39 53	6	0	0	269 4.41 18	362 7.54 31	428 12.07 50	0	0.52	--	1496 1378
16S/ 2W-17D 1 S 6- 2-65				81 4.04 15	133 10.94 41	267 11.61 44	3	0	0	452 7.41 27	165 3.81 14	563 15.66 58	3 0.05 0	0.40	--	1632 1456
16S/ 2W-17H 1 S 11-18-64				163 8.13 30	71 5.84 21	310 13.48 49	3	0	0	429 7.03 26	197 4.10 15	550 15.51 57	47 0.76 3	0.24	35	1725 1588
16S/ 2W-18L 1 S 6- 2-65				36 1.80 11	24 1.97 12	277 12.04 76	4	0	0	329 5.39 34	96 2.00 13	296 8.35 53	0	0.55	--	896 846
16S/ 3W-21J 1 S 3-11-65				--	--	700 30.44	--	--	--	--	--	1075 30.32	--	--	--	2816
5-17-65				--	--	520 22.61	--	--	--	--	--	1121 31.61	--	--	--	3000



TABLE E-1  
ANALYSES OF GROUND WATER  
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fus- sile SiO <sub>2</sub>	Miner- als B	Sol- ids SiO <sub>2</sub>	I.O.S. Evap 100°C Evap 105°C Computed Total		
SAN DIEGO HYDRO UNIT																		
Z0700																		
LOWER SAN DIEGO HYDRO SUBUNIT																		
MISSION SAN DIEGO HYDRO SUBAREA																		
Z07A0																		
16S/ 3W-21J 1 S 6- 2-65	68	7.9	3900	267 13.32 28	136 11.18 24	515 22.39 47	15 0.38 1	0	374 6.13 13	345 7.18 15	1225 34.55 72	3 0.05	0.2	0.30	--	2684 1226 2690		
7- 8-65	69	7.7	4149	221 11.03 26	141 11.60 28	435 18.91 45	15 0.38 1	0	339 5.56 13	395 8.22 20	974 27.47 67	1 0.02	0.6	0.24	--	2814 1132 2349		
16S/ 3W-22H 5 S 11-17-64	--	7.9	3600	216 10.78 25	98 8.06 19	540 23.48 55	10 0.26 1	0	385 6.31 15	414 8.62 20	961 27.10 64	2 0.03	0.4	0.74	--	2546 943 2431		
16S/ 3W-22K 2 S 7- 8-65	--	7.6	3461	212 10.58 30	93 7.65 22	383 16.65 48	6 0.15	0	376 6.16 18	401 8.35 24	714 20.13 58	0	0.5	0.29	--	2260 912 1995		
SANTÉE HYDRO SUBAREA																		
Z07A2																		
15S/ 1E- 7E 2 S 6- 3-65	--	7.4	1530	87 4.34 26	59 4.85 29	175 7.61 45	2 0.05	0	230 3.77 23	62 1.29 8	409 11.53 69	0	0.2	0.11	--	980 460 907		
15S/ 1E-17D 2 S 6- 3-65	--	7.7	680	49 2.45 31	35 2.88 36	60 2.61 33	3 0.08 1	0	208 3.41 44	103 2.14 27	80 2.26 29	0	0.2	0.09	--	458 267 432		
15S/ 1W-24C 9 S 11-18-64	64	8.0	1780	134 6.69 34	61 5.02 26	175 7.61 39	4 0.10 1	0	260 4.26 21	278 5.79 29	358 10.10 50	5 0.08	0.2	0.14	--	1334 586 1143		

TABLE E-1

ANALYSES OF GROUND WATER  
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	Total Evaporable Residue as CaCO3
Date sampled				Ca	Mg	Na	K	CO3	HCO3	SO4	Cl	NO3	F	B	SiO2	
LOWER SAN DIEGO HYDRO SUBUNIT																
SANTÉE HYDRO SUBAREA																
ZOT7A2																
SAN DIEGO HYDRO UNIT																
ZOT700																
15S/ 1W-27A 5 S 6- 3-65	68	7.5	3700	405 20.21 40	208 17.11 34	305 13.26 26	0.18	7	0	358 5.87 12	1114 23.19 46	762 21.49 42	10 0.16	0.2	--	5186 2987
15S/ 1W-28Q 3 S 11-18-64	--	7.7	2611	141 7.04 27	66 5.43 21	320 13.91 53	0.05	2	0	401 6.57 25	168 3.50 13	565 15.93 60	27 0.44 2	0.8	50	1730 1537
15S/ 1W-30K 2 S 11-18-64	--	8.1	880	52 2.59 28	30 2.47 27	95 4.13 45	0.05	2	0	188 3.08 34	73 1.52 17	156 4.40 48	7 0.11 1	0.2	--	636 508
6- 3-65	65	7.8	1000	51 2.54 24	36 2.96 28	113 4.91 47	0.08	3	0	222 3.64 35	90 1.87 18	166 4.68 45	13 0.21 2	0.2	--	670 582
EL CAJON HYDRO SUBAREA																
ZOT73																
15S/ 1E-31R 1 S 11-18-64	--	7.9	1480	82 4.09 26	45 3.70 24	178 7.74 49	0.13	5	0	334 5.47 33	196 4.08 24	230 6.49 39	46 0.74 4	0.6	--	1056 947
15S/ 1W-28Q 4 S 6- 3-65	70	8.0	3250	279 13.92 37	93 7.65 20	360 15.65 42	0.10	4	0	390 6.39 17	144 3.00 8	972 27.41 74	9 0.15	0.2	--	2328 2055
16S/ 1W- 1G 1 S 11-18-64	--	7.8	2040	145 7.24 32	84 6.99 31	190 8.26 37	0.03	1	0	306 5.02 23	445 9.26 42	233 6.57 29	89 1.44 6	0.2	--	1614 1339

TABLE E-1  
ANALYSES OF GROUND WATER  
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent				Mineral constituents in parts per million							
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	Total Hardness as CaCO <sub>3</sub>			
LOWER SAN DIEGO HYDRO SUBUNIT EL CAJON HYDRO SUBAREA				Z07A0				Z07A3				Z0700							
16S/ 1W- 2K 6 S 11-18-64	--	8.4	2088	131 6.54 30	63 5.18 24	225 9.78 45	2 0.05	0.60 3	18 20	264 4.33	185 3.85 18	386 10.89 51	110 1.77 8	0.7	0.10	60	1370 1311	586	
16S/ 1W- 3C 2 S 11-18-64	--	8.0	1730	79 3.94 24	42 3.45 21	205 8.91 54	3 0.08	0	155 2.54 15	72 1.50 9	440 12.41 75	3 0.05	0.6	0.6	0.16	12	1035 933	370	
16S/ 1W- 3E 1 S 11-18-64	75	8.1	1441	71 3.54 26	38 3.13 23	155 6.74 50	5 0.13 1	0	179 2.93 22	56 1.17 9	334 9.42 69	6 0.10	0.6	0.6	0.18	33	875 787	334	
16S/ 1W-11P 4 S 11- 6-63	--	7.3	3000	212 10.58 32	75 6.17 19	365 15.87 49	2 0.05	0	261 4.28 13	151 3.14 10	819 23.10 71	111 1.79 6	0.4	0.4	0.20	42	2242 1906	838	
11-18-64	--	8.2	3135	159 7.93 25	87 7.15 22	384 16.70 52	3 0.08	0	305 5.00 16	144 3.00 10	770 21.71 69	98 1.58 5	0.8	0.8	0.14	58	1865 1854	755	
16S/ 1W-12J 3 S 11-18-64	--	7.6	3400	277 13.82 38	161 13.24 36	220 9.57 26	6 0.15	0	273 4.47 12	220 4.58 13	904 25.49 70	113 1.82 5	0.1	0.1	0.15	--	2738 2035	1354	
EL MONTE HYDRO SUBAREA				Z07A5															
15S/ 1E- 2K 1 S 6- 3-65	72	8.0	520	48 2.40 41	22 1.81 31	37 1.61 27	2 0.05 1	0	221 3.62 63	14 0.29 5	64 1.80 32	0	0.2	0.2	0.05	--	350 296	211	

TABLE E-1  
ANALYSES OF GROUND WATER  
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per million percent reactance value					Mineral constituents in parts per million								
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	Total Evap Residue as Computed CaCO <sub>3</sub>						
LOWER SWEETWATER HYDRO SUBUNIT																						
SWEETWATER HYDRO SUBAREA				Z09A0					Z09A2										Z0900			
16S/ 1W-15K 8 S 11-18-64	--	7.6	2900	157 7.83 24	86 7.07 22	410 17.83 54	1 0.03	0	543 8.90 27	502 10.45 32	461 13.00 40	12 0.19 1	0.4	0.64	--	1976 1897	746					
17S/ 2W-33B 1 S 11-17-64	--	8.4	3200	92 4.59 14	60 4.93 15	550 23.91 71	13 0.33 1	12 0.40 1	329 5.39 16	159 3.31 10	869 24.51 73	0.0	0.2	0.50	--	1942 1917	476					
7- 7-65	70	7.9	3286	85 4.24 14	62 5.10 16	497 21.61 69	16 0.41 1	0	353 5.79 19	156 3.25 11	760 21.43 70	0	0.6	0.37	--	1909 1750	467					
17S/ 2W-36D 1 S 11-17-64	--	8.0	1100	62 3.09 25	46 3.78 31	120 5.22 43	5 0.13 1	0	141 2.31 19	322 6.70 56	106 2.99 25	0.0	0.2	0.25	--	834 731	364					

TABLE E-1  
ANALYSES OF GROUND WATER  
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per percent				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlo- ride Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- co SiO <sub>2</sub>	TDS Evap 180°C Hardness as CaCO <sub>3</sub>		
OTAY HYDRO SUBUNIT																		
Z10B0																		
OTAY HYDRO UNIT																		
Z1000																		
18S/ 2W-15J 2 S 1-12-65	70	7.9	1210	35 1.75 14	53 4.36 34	150 6.52 51	2 0.05	0	205 3.36 27	65 1.35 11	279 7.87 62	2 0.03	0.2	0.23	--	874 687	306	
18S/ 2W-15R 1 S 1-12-65	--	7.6	930	65 3.24 29	35 2.88 25	118 5.13 45	4 0.10	0	121 1.98 18	293 6.10 54	113 3.19 28	0.0	0.2	0.15	--	750 688	306	
18S/ 2W-21J 1 S 1-12-65	71	7.9	2500	123 6.14 23	85 6.99 27	300 13.04 50	3 0.08	0	140 2.29 9	100 2.08 8	762 21.49 83	0.0	0.1	0.34	--	1433 1442	657	
6-30-65	70	8.1	2680	142 7.09 27	55 4.52 17	325 14.13 55	5 0.13	0	150 2.46 9	188 3.91 15	708 19.97 76	0.8 0.01	0	0.26	--	2064 1498	581	
18S/ 2W-21J 2 S 6-30-65	--	8.4	2430	186 9.28 38	27 2.22 9	300 13.04 53	7 0.18	13 0.43	165 2.70 11	146 3.04 12	653 18.41 74	20.7 0.33 1	0.4	0	--	1844 1434	575	
18S/ 2W-21L 1 S 6-29-65	--	8.3	2680	145 7.24 28	62 5.10 19	315 13.70 52	5 0.13	19 0.63	151 2.47 9	157 3.27 12	709 19.99 76	7.1 0.11	0	0.05	--	2148 1493	617	



TABLE C-1  
ANALYSES OF GROUND WATER  
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million reactance value					Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Boron B	Silica SiO <sub>2</sub>	TDS Expressed as CaCO <sub>3</sub>	Hardness as CaCO <sub>3</sub>	
DULZURA HYDRO SUBUNIT				OTAY HYDRO UNIT										Z1000				
JAMUL HYDRO SUBAREA				Z10C3										Z10C3				
175/ 1E-10G 1 S	--	8.0	1100	54	52	122	5	0	161	318	106	0.0	0.2	0.24	--	818	349	
11-17-64				2.69	4.28	5.30	0.13		2.64	6.62	2.99					737		
				22	35	43	1		22	54	24							

TABLE E-1  
ANALYSES OF GROUND WATER  
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent					Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Polysulfate Sum	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Fluoride F	Silica SiO <sub>2</sub>	Iron Fe	I.D.S. Evap 1050C Hardness as CaCO <sub>3</sub>	
TIA JUANA HYDRO SUBUNIT																		
TIA JUANA HYDRO SUBAREA																		
Z11A0																		
Z11A1																		
Z1100																		
18S/ 2W-26H 1 S 1-12-65	86	7.8	1850	53 2.64 14	62 5.10 26	265 11.52 60	0.08	3	0	199 3.26 17	191 3.98 21	427 12.04 62	0.0	0.2	0.36	--	1280 387	
18S/ 2W-28L 1 S 6-29-65	67	8.1	4385	210 10.48 23	107 8.80 20	580 25.22 56	0.15	6	0	298 4.88 11	220 4.58 10	1206 34.01 78	13.8 0.22 1	0.3	0.27	--	2932 965	
18S/ 2W-29P 2 S 7- 7-65	--	7.1	4973	194 9.68 20	123 10.12 21	676 29.39 60	0.13	5	0	329 5.39 11	230 4.79 10	1400 39.48 79	35 0.56 1	0.6	0.55	--	3331 991	
18S/ 2W-33K 4 S 6-29-65	68	7.6	4300	206 10.28 21	184 15.13 31	530 23.04 47	0.15	6	0	356 5.83 12	611 12.72 27	1037 29.24 61	1.7 0.03	0.5	0.69	--	2980 1272	
18S/ 2W-33L 1 S 7- 7-65	87	8.1	2138	36 1.80 9	43 3.54 17	345 15.00 73	0.23	9	0	371 6.08 29	244 5.08 24	346 9.76 47	0	0.6	0.43	--	1291 267	
18S/ 2W-33L 5 S 6-29-65	68	7.9	4410	140 6.99 14	177 14.56 30	630 27.39 56	0.26	10	0	446 7.31 15	347 7.22 15	1190 33.56 70	8.2 0.13	0.5	0.71	--	2924 1078	
18S/ 2W-33L 9 S 7- 7-65	67	7.5	4562	211 10.53 22	116 9.54 20	621 27.00 57	0.33	13	0	526 8.62 18	411 8.56 18	1064 30.00 63	7 0.11	0.8	0.68	--	2901 1004	
18S/ 2W-33L 10 S 10-15-64	94	8.0	2062	39 1.95 10	38 3.13 15	345 15.00 74	0.28	11	0	359 5.88 29	234 4.87 24	350 9.87 48	0	0.6	0.44	66	1240 254 1261	

ANALYSES OF GROUND WATER  
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				Mineral constituents in parts per million					
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chloride Cl	Fluoride F	Silica SiO <sub>2</sub>	Iron Fe	Copper Cu	Zinc Zn	Total dissolved solids TDS
TIA JUANA HYDRO SUBUNIT																	
TIA JUANA HYDRO SUBAREA																	
Z11AU Z11A1																	
TIA JUANA HYDRO UNIT																	
Z1100																	
18S/ 2W-33L10 S 1-14-65	93	7.7	1850	32 1.60	45 3.70	380 16.52	12 0.31	--	378 6.20	244 5.08	372 10.49	0.0	0.0	0.4	0.46	--	1792 1271
18S/ 2W-34L 2 S 7-7-65	72	7.6	5157	283 14.12	133 10.94	713 31.00	8 0.30	0	484 7.93	244 19.65	360 27.86	0.0	0.0	0.0	0.46	--	3560 1254
18S/ 2W-35D 1 S 1-12-65	--	7.8	2750	108 5.39	56 4.61	430 18.70	2 0.05	0	309 5.06	186 3.87	691 19.65	0.0	0.0	0.2	0.66	--	1656 600
18S/ 2W-35L 1 S 1-15-64	--	7.5	5155	207 10.33	138 11.35	675 29.35	9 0.25	0	256 4.20	344 7.27	140 19.65	0.0	0.0	0.6	0.45	--	1626 1035
19S/ 2W- 1M13 S 10-15-64	69	7.8	3100	188 9.38	64 5.39	450 19.57	6 0.18	0	395 6.47	245 5.10	788 27.80	0.0	0.0	0.4	0.40	--	1188 789
19S/ 2W- 4A10 S 10-15-64	64	7.9	3096	186 9.28	81 6.65	396 17.22	5 0.15	0	308 5.08	485 10.10	640 19.65	0.0	0.0	0.8	0.36	21	2080 798
19S/ 2W- 4D 1 S 6-30-65	--	7.7	5800	381 19.01	135 10.97	695 30.22	8 0.22	0	373 6.47	417 8.68	1845 52.19	0.0	0.0	0.5	0.19	--	4680 1770
19S/ 2W- 4F 4 S 6-29-65	68	7.9	4820	194 9.68	116 9.54	780 33.91	7 0.18	0	460 7.54	573 11.97	1100 36.36	0.0	0.0	0.7	0.96	--	3336 964
				18		54			11		66						513

TABLE E-1  
ANALYSES OF GROUND WATER  
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per million reactance value					Mineral constituents in parts per million				
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO <sub>3</sub>	Bicar- bonate HCO <sub>3</sub>	Sulfate SO <sub>4</sub>	Chlor- ide Cl	Ni- trate NO <sub>3</sub>	Fluo- ride F	Boron B	Sili- ca SiO <sub>2</sub>	TDS Evap 180°C Evap 105°C as Computed CaCO <sub>3</sub>	Total Hardness as CaCO <sub>3</sub>	
TIA JUANA HYDRO SUBUNIT																		
TIA JUANA HYDRO SUBAREA				Z11A0														
TIA JUANA HYDRO SUBUNIT				Z11A1														
TIA JUANA HYDRO UNIT																		
Z1100																		
19S/ 2W- 4L 4 S 6-30-65	--	7.9	4560	224 11.18 27	106 8.72 21	490 21.31 51	7 0.18	0	269 4.41 11	565 11.76 79	879 24.79 60	1.7 0.03	0.23	--	2752 2406	996		
19S/ 2W- 5Q 2 S 10-15-64	70	7.6	5000	361 18.01 31	120 9.87 17	705 30.65 52	1 0.03	0	177 2.90 5	649 13.51 23	1461 41.20 72	0.0 0.4	0.52	--	3954 3385	1395		

STATE WELL NUMBER	DATE SAMPLED	Constituents in parts per billion																
		Alumi- num (Al)	Beryl- lium (Be)	Bismuth (Bi)	Cadmium (Cd)	Cobalt (Co)	Chro- mium (Cr)	Copper (Cu)	Iron (Fe)	Gallium (Ga)	Germo- num (Ge)	Mango- nese (Mn)	Molyb- denum (Mo)	Nickel (Ni)	Lead (Pb)	Titanium (Ti)	Vanadium (V)	Zinc (Zn)
CENTRAL COASTAL DRAINAGE PROVINCE (T)																		
T-10-A3 San Simeon Hydrologic Subarea																		
266/8B - 36831 M	4-27-65	7.3	1.3*	0.67*	29	3.3*	30	3.3*	19	13*	0.67*	3.3*	0.67*	4.7	3.3*	1.3*	1.6	1.5*
T-10-A4 Santa Rosa Hydrologic Subarea																		
275/9B - 19031 M	4-24-65	11	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	27	13*	0.67*	3.3*	2.9	0.67	3.3*	1.3*	1.5	3.5*
T-12-A0 Santa Maria Hydrologic Subunit																		
10N/3W - 2087 S	6-3-65	14	0.57*	0.29*	1.4*	1.1*	1.1*	8.0	66	5.7*	0.29*	1.4*	6.0	1.2	3.7	0.57*	1.5*	1.5*
32N S	6-3-65	6.9	0.57*	0.29*	1.4*	1.1*	1.1*	1.1*	2.2	5.7*	0.29*	1.1	3.1	0.51	1.4*	0.57*	2.5*	1.5*
34E2 S	6-3-65	4.6	0.57*	0.29*	1.4*	1.1*	1.1*	1.1*	1.9	5.7*	0.29*	1.4*	3.7	0.49	1.4*	0.57*	4.0	1.5*
LOS ANGELES DRAINAGE PROVINCE (U)																		
U-03-A1 Onond Hydrologic Subarea																		
1N/21W - 1985 S	8-17-65	3.3*	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	36	13*	0.67*	933	15	0.67*	3.3*	1.3*	0.67*	1.5*
3N/22W - 704 S	8-18-65	3.3*	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	36	13*	0.67*	1140	4.0	0.47*	3.3*	1.3*	2.5*	3.5*
8-25-65		3.3*	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	10	13*	0.67*	527	13	0.47*	3.3*	1.3*	0.67*	1.5*
2N/22W - 2514 S	8-19-65	3.3*	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	67	13*	0.67*	3.4*	0.67*	0.47*	20	1.3*	0.67*	3.5*
311E S	8-17-65	7.3	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	6700**	13*	0.67*	2.3	9.3	0.67*	3.3*	1.3*	1.5*	3.5*
U-03-A2 Pleasant Valley Hydrologic Subarea																		
1N/21W - 213 S	8-25-65	3.3*	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	3.0	13*	0.67*	5.3*	3*	0.67*	3.3*	1.3*	0.67*	1.5*
3N/21W - 392 S	8-19-65	19	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	31	13*	0.67*	2.5	0.67	0.70	1.3*	1.3*	0.67*	3.5*
8-23-65		1.3*	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	15	13*	0.67*	4.5	0.67*	0.47*	3.3*	1.3*	0.67*	1.5*
27E2 S	8-17-65	6.0	1.3*	0.67*	3.3*	3.3*	1.3	3.3*	4700**	13*	0.67*	15*	0.67*	3.3*	1.3*	1.3*	0.67*	1.5*
U-03-A3 Fillmore Hydrologic Subarea																		
4N/20W - 2502 S	8-26-65	3.3*	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	8.0	13*	0.67*	4.3*	4.9	1.4	11	1.3*	0.67*	3.5*
33E1 S	8-18-65	15	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	17	13*	0.67*	4.3*	3.1*	0.7	3.3*	1.3*	0.67*	1.5*
U-03-A4 Folsom Hydrologic Subarea																		
4N/18W - 2802 S	8-26-65	3.3*	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	15	13*	0.67*	1.3*	0.67*	1.3*	1.3*	1.3*	0.67*	1.5*
3102 S	8-26-65	3.3*	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	8.7	13*	0.67*	4.3*	0.67*	1.3*	1.3*	1.3*	0.67*	1.5*
U-03-A5 Upper Folsom Hydrologic Subarea																		
6N/17W - 7K1 S	6-24-65	0.3	0.67*	0.67*	1.3*	1.3*	1.3*	1.3*	100	0.7*	1.0	0.3	0.3	0.67*	1.3*	0.67*	0.67*	3.5*

\* Results are less than the amount indicated.

\*\* Results are more than the amount indicated.



TABLE E-2  
ANALYSES OF TRACE ELEMENTS IN GROUND WATER

STATE WELL NUMBER	DATE SAMPLED	Constituents in parts per billion															Titanium (Ti)	Vanadium (V)	Zinc (Zn)
		Alumi- num (Al)	Beryl- lium (Be)	Bismuth (Bi)	Cadmium (Cd)	Cobalt (Co)	Chro- mium (Cr)	Copper (Cu)	Iron (Fe)	Gallium (Ga)	Germa- num (Ge)	Manga- nese (Mn)	Molyb- denum (Mo)	Nickel (Ni)	Lead (Pb)				
LOS ANGELES DRAINAGE PROVINCE (U) (continued)																			
U-03.E1 Eastern Hydrologic Subarea																			
4N/164 - 21D1 S	6-29-65	70	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	5.9	13*	0.67*	3.3*	4.3	0.67*	3.3*	1.3*	5.5		
4N/174 - 12B4 S	7-20-65	3.3*	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	1.6	13*	0.67*	3.3*	0.67*	0.67*	3.3*	1.3*	0.67*		
5N/164 - 701 S	2-4-65	6.7	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	6.7	13*	0.67*	8.0	4.7	2.0	3.3*	1.3*	0.87		
5N/174 - 801 S	2-4-65	4.3	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	3.3*	13*	0.67*	51	0.67*	0.67**	3.3*	1.3*	0.67*		
5N/174 - 12D1 S	2-4-65	7.3	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	3.3*	13*	0.67*	3.3*	4.7	0.67**	3.3*	1.3*	1.3		
12K1 S	2-4-65	4.0	1.3*	0.67*	3.3*	3.3*	3.3*	21	3.3*	13*	0.67*	3.3	3.0	1.7	3.3*	1.3*	4.9		
12K1 S	2-4-65	4.5	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	3.3*	13*	0.67*	127	2.1	0.67*	3.3*	1.3*	0.67*		
6N/174 - 36B1 S	2-4-65	18	1.3*	0.67*	3.3*	3.3*	3.3*	30	3.3*	13*	0.87	1.5	1.5	0.80	3.3*	1.3*	0.67*		
U-03.F2 East Las Posas Hydrologic Subarea																			
3N/194 - 19P2 S	8-26-65	3.3*	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	8.7	13*	0.67*	176	0.67*	0.67*	3.3*	1.3*	0.67*		
3N/204 - 24R1 S	8-26-65	3.3*	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	56	13*	0.67*	34	0.67*	0.67*	3.3*	1.3*	0.67*		
U-03.F3 Arroyo Santa Rosa Hydrologic Subarea																			
2N/204 - 25D5 S	8-18-65	3.3*	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	21	13*	0.67*	27	8.7	3.5	3.3*	1.3*	100		
U-05.A2 West Coast Hydrologic Subarea																			
3S/1144 - 35N6 S	7-14-65	10	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	10	13*	0.67*	12	0.67*	0.67**	3.3*	1.3*	0.67*		
5S/134 - 2K8 S	7-9-65	13	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	9.3	13*	0.67*	1000**	2.5	1.9	3.3*	3.1	3.5		
7-9-65	14Q1 S	1.3*	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	17	13*	0.67*	667**	2.9	1.7	3.3*	2.4	4.8		
11H2 S	7-9-65	44	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	73	13*	0.67*	1000**	0.67*	6.7	3.3*	6.5	8.0		
11H3 S	7-9-65	31	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	16	13*	0.67*	1000**	0.67*	1.2	4.1	7.3	10		
U-05.A3 Santa Monica Hydrologic Subarea																			
IS/154 - 32A5 S	9-2-65	3.3*	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	8.7	13*	0.67*	3.3*	0.67*	1.4	3.3*	1.3*	0.67*		
U-05.A5 Central Hydrologic Subarea																			
2S/134 - 32H1S	7-6-65	6.3	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	4.1	13*	0.67*	70	9.3	0.67*	3.3*	1.3*	0.67*		
3S/114 - 20V6 S	8-12-65	9.3	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	6.7	13*	0.67*	87	3.6	0.67*	3.3*	1.7	0.67*		
3S/114 - 20H7 S	8-12-65	15	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	23	13*	0.67*	3.3*	11	2.1	3.3*	1.3*	4.0		
3H4 S	8-12-65	6.7	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	287	13*	0.67*	3.3*	3.1	0.7	3.3*	1.3*	0.67*		
3S/124 - 5D3 S	8-12-65	19	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	5.7	13*	0.67*	67	0.67*	4.1	3.3*	1.3*	0.67*		
19H4 S	7-14-65	9.3	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	1.4	13*	0.67*	3.3*	9.3	0.67*	3.3*	1.3*	0.67*		
4S/114 - 19K2 S	7-8-65	11	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	4.3	13*	0.67*	650**	3.3	0.93	3.3*	1.3*	2.6		
4S/124 - 1D5 S	7-8-65	9.3	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	4.7	13*	0.67*	3.3*	4.5	0.67	3.3*	1.3*	0.67*		
4S/124 - 1F3 S	7-8-65	9.3	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	4.7	13*	0.67*	3.3*	4.5	0.67	3.3*	1.3*	0.67*		
U-05.B1 San Fernando Hydrologic Subarea																			
1N/134 - 24P2 S	5-13-65	25	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	26.0	13*	0.67*	1400**	6.7	28	3.3*	4.7	7.3		
1N/144 - 9H4 S	6-30-65	9.3	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	5.6	13*	0.67*	3.3*	8.0	0.67*	3.3*	1.3*	5.0		
1N/154 - 1K2 S	7-6-65	8.0	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	4.1	13*	0.67*	3.3*	3.7	0.67*	3.3*	1.3*	3.1*		

STATE WELL NUMBER	DATE SAMPLED	PROVINCE (U)	Constituents in parts per billion															
			Alum- num (Al)	Beryl- lium (Be)	Bismuth (Bi)	Cadmium (Cd)	Cobalt (Co)	Chro- mium (Cr)	Copper (Cu)	Iron (Fe)	Gallium (Ga)	Germa- nium (Ge)	Mango- nese (Mn)	Nickel (Ni)	Lead (Pb)	Titanium (Ti)	Vanadium (V)	Zinc (Zn)
<u>LOS ANGELES DRAINAGE PROVINCE (U) (continued)</u>																		
<u>U-05-B4 Verdugo Hydrologic Subarea</u>																		
1W/13W - 18M1 S	6-30-65	8.0	1.3*	0.67*	0.67*	3.3*	3.3*	3.3*	3.3*	5.2	1.3*	0.67*	3.3*	0.67*	3.3*	1.3*	11	1.3*
2001 S	6-30-65	8.0	1.3*	0.67*	0.67*	3.3*	4.8	3.3*	3.3*	4.9	1.3*	0.67*	3.3*	0.67*	3.3*	1.3*	11	1.3*
<u>U-05-C3 Santa Anita Hydrologic Subarea</u>																		
1W/11W - 21C7 S	7- 2-65	11	1.3*	0.67*	0.67*	3.3*	3.3*	3.3*	3.3*	6.3	1.3*	0.67*	3.3*	0.80	3.3*	1.3*	9.3	1.3*
21H3 S	7-28-65	13	1.3*	0.67*	0.67*	3.3*	3.3*	3.3*	3.3*	8.0	1.3*	0.67*	3.3*	0.67*	3.3*	1.7	10	1.3*
<u>U-05-D1 Main San Gabriel Hydrologic Subarea</u>																		
15/10W - 28X5 S	7- 9-65	3.3*	1.3*	0.67*	0.67*	3.3*	3.3*	3.3*	3.3*	8.7	1.3*	0.67*	3.3*	0.9	3.3*	1.3*	11	1.3*
300W S	7- 7-65	5.2	1.3*	0.67*	0.67*	3.3*	3.3*	3.3*	3.3*	5.6	1.3*	0.67*	3.3*	0.67*	3.3*	1.3*	11	1.3*
3303 S	7-28-65	3.7	1.3*	0.67*	0.67*	3.3*	3.3*	3.3*	3.3*	5.1	1.3*	0.67*	3.3*	0.7	3.3*	1.7	10	1.3*
15/11W - 213 S	7-13-65	8.0	1.3*	0.67*	0.67*	3.3*	3.3*	3.3*	3.3*	7.3	1.3*	0.67*	3.3*	0.67*	3.3*	1.3*	2.4	1.3*
180C S	7-13-65	10	1.3*	0.67*	0.67*	3.3*	3.3*	3.3*	3.3*	4.4	1.3*	0.67*	3.3*	0.67*	3.3*	1.3*	2.0	1.3*
13P1 S	7-13-65	11	1.3*	0.67*	0.67*	3.3*	3.3*	3.3*	3.3*	5.1	1.3*	0.67*	3.3*	0.67*	3.3*	1.3*	2.0	1.3*
19P1 S	7- 7-65	6.7	1.3*	0.67*	0.67*	3.3*	3.3*	8.7	3.3*	7.3	1.3*	0.67*	3.3*	0.67*	3.3*	1.3*	3.3	1.3*
25/ 9W - 19P4 S	7-28-65	11	1.3*	0.67*	0.67*	3.3*	3.3*	3.3*	3.3*	5.3	1.3*	0.67*	3.3*	1.2	3.3*	1.3*	3.1	1.3*
25/11W - 541 S	7- 2-65	10	1.3*	0.67*	0.67*	3.3*	3.3*	3.3*	3.3*	4.5	1.3*	0.67*	3.3*	0.67*	3.3*	1.3*	3.1	1.3*
542 S	7- 2-65	6.7	1.3*	0.67*	0.67*	3.3*	3.3*	3.3*	3.3*	3.0	1.3*	0.67*	3.3*	0.67*	3.3*	1.3*	1.7	1.3*
5816 S	7- 2-65	8.7	1.3*	0.67*	0.67*	3.3*	3.3*	3.3*	3.3*	6.0	1.3*	0.67*	6.3*	1.5	3.3*	1.3*	3.3	1.3*
<u>COLORADO RIVER BASIN LEATHER FURNACE (X)</u>																		
<u>X-07-00 Deshman Hydrologic Unit</u>																		
2N/7E - 341 S	11-10-64	7.3	1.3*	0.67*	0.67*	3.3*	3.3*	11	3.3*	3.3*	1.3*	5.7	3.3*	0.67*	3.3*	1.3*	11	1.3*
381 S	11-10-64	5.9	1.3*	0.67*	0.67*	3.3*	5.9	5.7	3.3*	3.3*	1.3*	5.0	-	0.47*	3.3*	1.3*	11	1.3*
<u>SANTA ANA DRAINAGE PROVINCE (Y)</u>																		
<u>Y-01-B1 Chino Hydrologic Subarea</u>																		
15/6W - 3301 S	7-13-65	8.3	1.3*	0.67*	0.67*	3.3*	3.3*	3.3*	3.3*	4.7	1.3*	0.67*	6.3*	3.9	3.3*	1.3*	1.3	1.3*
<u>Y-01-C2 Redford Hydrologic Subarea</u>																		
45/6W - 22D1 S	3-20-65	4.2	2.0*	1.0*	1.0*	5.0*	5.0*	5.0*	5.0*	14	20*	1.3*	5.0*	1.3*	3.3*	1.3*	1.3	1.3*

TABLE E-3  
RADIOASSAYS OF GROUND WATER  
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State Well Number	Date Sampled	Picocuries per liter <sup>a</sup>		
		Gross Alpha Gross Beta	Solid Alpha Solid Beta	Dissolved Alpha Dissolved Beta

T-09.I0 Pozo Hydrologic Subunit

30S/15E-10G2 M	10- 4-64	$0.72 \pm 2.09$ $0.18 \pm 10.80$
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T-10.B2 Chorro Hydrologic Subarea

29S/11E-32M1 M	10- 7-64	$5.65 \pm 2.50$ $-10.31$
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T-10.B4 San Luis Obispo Creek Hydrologic Subarea

31S/12E-32D2 M	10-14-64	$0.00$ $-5.10$
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T-10.B6 Pismo Hydrologic Subarea

32S/12E-13J1 M	10-13-64	$211.00 \pm 68.60$ $23.82 \pm 14.38$
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T-10.C1 Arroyo Grande Hydrologic Subarea

32S/13E-32H1 M	10-14-64	$-1.22$ $-10.34$
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T-11.00 Carrizo Plain Hydrologic Unit

30S/18E- 2N1 M	10- 7-64	$3.60 \pm 3.42$ $-8.04$
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<sup>a</sup> Deviations reported at the 95% confidence level

TABLE E-3  
RADIOASSAYS OF GROUND WATER  
LOS ANGELES DRAINAGE PROVINCE (U)

State Well Number	Date Sampled	Picocuries per liter <sup>a</sup>		
		Gross Alpha Gross Beta	Solid Alpha Solid Beta	Dissolved Alpha Dissolved Beta
<u>U-02.C1 Upper Ojai Hydrologic Subarea</u>				
4N/22W- 9Q2 S	10-28-64		$\frac{0.41 \pm 0.81}{-3.10}$	$\frac{4.15 \pm 6.23}{15.21 \pm 13.72}$
4N/22W-12N1 S	10-28-64		$\frac{-0.26}{-1.08}$	$\frac{1.21 \pm 2.56}{-5.34}$
<u>U-02.C2 Ojai Hydrologic Subarea</u>				
4N/23W-11D1 S	10-22-64		$\frac{0.07 \pm 0.73}{-10.53}$	$\frac{-1.13}{-12.37}$
4N/23W-12H2 S	10-27-64		$\frac{0.15 \pm 0.63}{-2.00}$	$\frac{-2.52}{-16.79}$
<u>U-03.A2 Pleasant Valley Hydrologic Subarea</u>				
2N/21W-23K4 S	12-21-64	$\frac{-2.73 \pm 1.13}{-8.44 \pm 10.61}$		
<u>U-03.D1 Piru Hydrologic Subarea</u>				
4N/19W-33D4 S	12- 1-64	$\frac{6.82 \pm 11.76}{13.30 \pm 14.47}$		
<u>U-03.F3 Arroyo Santa Rosa Hydrologic Subarea</u>				
2N/20W-24E1 S	10-28-64	$\frac{8.25 \pm 6.02}{-3.93}$		
<u>U-05.A2 West Coast Hydrologic Subarea</u>				
3S/14W-25K4 S	10-26-64	$\frac{-0.86}{2.16 \pm 10.95}$		
3S/14W-27C1 S	10-26-64	$\frac{-0.30}{-3.39}$		
3S/14W-30H2 S	11- 2-64		$\frac{-0.41}{-3.48}$	$\frac{-1.43}{-6.25}$

TABLE E-3  
 RADIOASSAYS OF GROUND WATER  
 LOS ANGELES DRAINAGE PROVINCE (U)  
 (Cont'd)

State Well Number	Date Sampled	Picrocuries per liter <sup>a</sup>		
		Gross Alpha Gross Beta	Solid Alpha Solid Beta	Dissolved Alpha Dissolved Beta

U-05.A2 West Coast Hydrologic Subarea

4S/14W- 9Q1 S	10-30-64	$\frac{1.67 \pm 3.60}{0.56 \pm 11.97}$		
4S/14W-16L4 S	10-29-64	$\frac{5.13 \pm 4.46}{-13.22}$		



TABLE E-3  
RADIOASSAYS OF GROUND WATER  
SAN DIEGO DRAINAGE PROVINCE (Z)

State Well Number	Date Sampled	Picouries per liter <sup>a</sup>		
		Gross Alpha Gross Beta	Solid Alpha Solid Beta	Dissolved Alpha Dissolved Beta

Z-01.C0 San Clemente Hydrologic Subunit

9S/7W-10A1 S	11-23-64	$-0.07$ $-3.19$	$1.69 \pm 2.64$ $17.41 \pm 11.97$
9S/7W-10A2 S	11-23-64	$0.30 \pm 0.81$ $6.20 \pm 7.94$	$1.49 \pm 3.27$ $-21.17$
9S/7W-10A3 S	11-23-64	$0.48 \pm 0.81$ $-9.91$	$0.77 \pm 2.61$ $5.49 \pm 10.91$
9S/7W-10H1 S	11-23-64	$-0.15$ $4.35 \pm 8.78$	$-0.12$ $3.65 \pm 11.11$

Z-01.D0 San Mateo Hydrologic Subunit

9S/7W-11A1 S	11-23-64	$-0.26$ $-6.70$	$-1.92$ $-12.86$
9S/7W-14G1 S	11-23-64	$0.07 \pm 0.73$ $-4.08$	$0.75 \pm 3.29$ $1.61 \pm 10.99$

Z-02.C2 Murrieta Hydrologic Subarea

8S/3W-12N5 S	12- 2-64	$-0.59$ $4.90 \pm 8.88$	$-0.43$ $7.12 \pm 12.33$
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Z-02.C3 French Hydrologic Subarea

6S/2W-28G3 S	12- 2-64	$-0.59$ $-2.26$	$0.86 \pm 1.71$ $-8.31$
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Z-02.C5 Domenigoni Hydrologic Subarea

6S/2W- 3R2 S	12- 2-64	$0.26 \pm 0.73$ $-1.88$	$-0.19$ $7.47 \pm 11.34$
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Z-02.D1 Auld Hydrologic Subarea

7S/2W-10D1 S	12- 2-64	$0.33 \pm 0.81$ $-0.67$	$10.07 \pm 1.67$ $2.54 \pm 9.55$
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TABLE E-3  
RADIOASSAYS OF GROUND WATER  
SAN DIEGO DRAINAGE PROVINCE (Z)  
(Cont'd)

State Well Number	Date Sampled	Picocuries per liter <sup>a</sup>		
		Gross Alpha Gross Beta	Solid Alpha Solid Beta	Dissolved Alpha Dissolved Beta
<u>Z-02.D4 Tucalota Hydrologic Subarea</u>				
7S/1W-12HI S	12- 2-64		$0.07 \pm 0.63$ -0.12	$4.59 \pm 6.49$ 12.05 $\pm$ 13.47
<u>Z-02.E2 Pechanga Hydrologic Subarea</u>				
8S/2W-20B4 S	12- 2-64		$-0.30$ -2.70	$3.65 \pm 5.31$ -0.93
<u>Z-02.F1 Lancaster Valley Hydrologic Subarea</u>				
8S/1E- 7Q4 S	12- 2-64		$-0.59$ -7.80	$0.53 \pm 4.47$ -2.00
<u>Z-02.G1 Lower Coahuila Hydrologic Subarea</u>				
7S/2E-32J1 S	12- 3-64		$0.71 \pm 0.89$ -0.26	$0.98 \pm 1.53$ 7.28 $\pm$ 10.48
<u>Z-03.A1 Mission Hydrologic Subarea</u>				
11S/4W- 4N1 S	11-19-64		$-0.04$ 8.05 $\pm$ 8.58	$5.51 \pm 5.63$ 3.55 $\pm$ 13.04
11S/4W- 6R4 S	11-19-64		$-6.25$ -3.33	$-0.52$ 10.87 $\pm$ 8.97
11S/4W- 8K1 S	11-19-64		$0.26 \pm 0.73$ -4.24	$21.43 \pm 44.72$ 10.21 $\pm$ 13.32
11S/4W- 8N3 S	12-23-64		$0.59 \pm 0.96$ 6.29 $\pm$ 8.85	$2.34 \pm 2.58$ 1.48 $\pm$ 11.06
11S/4W-18L3 S	12-23-64		$0.30 \pm 0.81$ -1.86	$-35.00$ 2.37 $\pm$ 15.03
<u>Z-03.C1 Warner Hydrologic Subarea</u>				
11S/3E- 3N1 S	12- 3-64		$0.15 \pm 0.64$ -9.28	$-0.46$ 9.48 $\pm$ 10.59

TABLE E-3

## RADIOASSAYS OF GROUND WATER

SAN DIEGO DRAINAGE PROVINCE (Z)  
(Cont'd)

State Well Number	Date Sampled	Picocuries per liter <sup>a</sup>		
		Gross Alpha Gross Beta	Solid Alpha Solid Beta	Dissolved Alpha Dissolved Beta
<u>Z-04.B1 Carlsbad Hydrologic Subarea</u>				
11S/4W-33F1 S	11-19-64	$0.45 \pm 0.81$ $9.33 \pm 8.73$		$-8.00$ $2.32 \pm 13.58$
<u>Z-04.C1 Agua Hedionda Hydrologic Subarea</u>				
12S/4W-10H3 S	11-19-64	$0.11 \pm 0.63$ $2.42 \pm 8.71$		$-5.22$ $-1.04$
<u>Z-06.A0 Soledad Hydrologic Subunit</u>				
14S/3W-19Q1 S	11-19-64	$-0.45$ $1.07 \pm 9.43$		$4.65 \pm 7.75$ $29.52 \pm 15.10$
<u>Z-07.A2 Santee Hydrologic Subarea</u>				
15S/1W-28Q3 S	11-18-64	$-0.22$ $0.03 \pm 8.62$		$3.33 \pm 8.17$ $2.29 \pm 12.49$
<u>Z-07.A3 El Cajon Hydrologic Subarea</u>				
15S/1E-31R1 S	11-18-64	$-0.07$ $-4.46$		$7.12 \pm 6.25$ $12.97 \pm 13.25$
16S/1W- 1G1 S	11-18-64	$-1.78$ $10.00 \pm 28.67$		$-0.52$ $0.43 \pm 8.64$
16S/1W- 2K6 S	11-18-64	$-0.33$ $-1.27$		$3.60 \pm 7.84$ $10.84 \pm 14.16$
16S/1W- 3C2 S	11-18-64	$-0.30$ $-7.13$		$6.33 \pm 6.00$ $7.35 \pm 11.51$
16S/1W-11P4 S	11-18-64	$0.00$ $-4.37$		$2.22 \pm 9.43$ $8.37 \pm 30.85$
16S/1W-12J3 S	11-18-64	$-0.22$ $-1.86$		$6.15 \pm 16.85$ $7.27 \pm 30.30$
<u>Z-09.A2 Sweetwater Hydrologic Subarea</u>				
16S/1W-15K8 S	11-18-64	$0.74 \pm 0.63$ $-2.62$		$4.44 \pm 10.89$ $22.17 \pm 34.00$

TABLE E-3  
RADIOASSAYS OF GROUND WATER  
SAN DIEGO DRAINAGE PROVINCE (Z)  
(Cont'd)

State Well Number	Date Sampled	Picocuries per liter <sup>a</sup>		
		Gross Alpha Gross Beta	Solid Alpha Solid Beta	Dissolved Alpha Dissolved Beta

Z-10.C3 Jamul Hydrologic Subarea

17S/1E-10G1 S	11-17-64	$0.74 \pm 0.63$ $3.77 \pm 8.48$	$5.96 \pm 5.44$ $9.25 \pm 11.38$
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Z-11.A1 Tia Juana Hydrologic Subarea

18S/2W-35L1 S	10-15-64	$2.01 \pm 1.02$ $-0.17$	$7.45 \pm 6.26$ $0.25 \pm 11.46$
19S/2W-1M13 S	10-15-64 /	$-0.26$ $1.16 \pm 8.62$	$4.00 \pm 9.80$ $99.04 \pm 34.61$
19S/2W-4A10 S	10-15-64 /	$-0.75$ $3.90 \pm 9.94$	$51.36 \pm 99.59$ $6.23 \pm 14.56$
19S/2W- 5Q2 S	10-15-64	$0.07 \pm 0.57$ $-1.07$	$-4.00$ $-25.61$

TABLE E-4

## ANALYSES OF SYNTHETIC DETERGENTS IN GROUND WATER

State Well Number	Date Sampled	Parts per Million		State Well Number	Date Sampled	Parts per Million				
		MBAS as ABS	PO4			MBAS as ABS	PO4			
<u>CENTRAL COASTAL DRAINAGE PROVINCE (T)</u>										
<u>T-09, HO Paso Robles Hydrologic Subunit</u>										
25S/12E- 8G1 M	5- 4-65	0.20	0.10	LOS ANGELES DRAINAGE PROVINCE (U)	U-05, A5 Central Hydrologic Subarea	(cont'd)	1.00			
- 8R1 M	5- 4-65	0.40	0.00				0.03			
-16L2 M	5- 4-65	0.00	0.00				0.02			
26S/12E- 5A2 M	12-18-64	0.00	--				0.07			
-21D1 M	5- 6-65	0.40	0.10				0.06			
-21L1 M	5- 6-65	0.20	1.40				0.12			
-33E2 M	5-28-65	0.60	--				0.06			
-33Q2 M	5- 6-65	0.00	0.20				0.04			
<u>LOS ANGELES DRAINAGE PROVINCE (U)</u>										
<u>U-05, A5 Central Hydrologic Subarea</u>										
2S/11W-30Q1 S	7-20-65	0.06	0.04	LOS ANGELES DRAINAGE PROVINCE (W)	W-20, EO Lower Mojave Hydrologic Subunit		1.20			
2S/12W-10J1 S	7-20-65	0.04	0.05				0.10			
-12E2 S	7-29-65	0.01	0.06				0.02			
-13W7 S	7-20-65	0.04	0.06				0.11			
-14B4 S	7-20-65	0.04	0.02				0.08			
-21B5 S	7-20-65	0.02	0.04				0.02			
	2- 0-65	0.00	0.80				0.04			
	7-20-65	0.03	0.00				0.04			
-24B5 S	7-29-65	0.02	0.06				0.02			
	2- 5-65	0.12	0.30				0.04			
	7-20-65	0.04	0.02	LAHONTAN DRAINAGE PROVINCE (W)	9N/ 1W- 9G 3 S - 9H 1 S		1.16			
	7-20-65	0.03	0.09				0.44			

a Methylene blue active substance as alkyl benzene sulfonate. See page 6.



TABLE E-4  
ANALYSES OF SYNTHETIC DETERGENTS IN GROUND WATER

State Well Number	Date Sampled	Parts per Million		State Well Number	Date Sampled	Parts per Million			
		MBAS as ABS	PO4			MBAS as ABS	PO4		
<u>SANTA ANA DRAINAGE PROVINCE (Y)</u>									
<u>Y-OL.A1 East Coastal Plain Hydrologic Subarea</u>									
5S/11W-21M7 S	1-25-65	0.10	--	SANTA ANA DRAINAGE PROVINCE (Y) cont'd	<u>Y-OL.B1 Chino Hydrologic Subarea</u>				
-21N1 S	1-25-65	0.10	--			1S/7W-26P1 S	3-11-65	0.02	--
-21N2 S	1-25-65	0.10	--			-26P1 S	9-30-65	0.00	--
-21N3 S	1-25-65	0.10	--			-35B1 S	9-30-65	0.02	--
-21N4 S	1-25-65	0.10	--			2S/7W- 2G1 S	3-11-65	0.02	--
-21N5 S	1-25-65	0.20	--			- 2Q1 S	3-11-65	0.06	--
-21N6 S	1-25-65	0.00	--			-10C1 S	3- 8-65	0.13	--
-21N7 S	1-25-65	0.00	--			-10H1 S	3- 9-65	0.20	--
-21N8 S	1-25-65	0.10	--			-10L4 S	3- 8-65	0.16	--
-28D5 S	12-23-64	0.05	--			-20L1 S	3- 8-65	0.06	--
-28D6 S	12-18-64	0.00	--			-30G1 S	3- 8-65	0.13	--
-28D6 S	1-25-65	0.10	--			-30H1 S	10-29-64	0.06	--
-29A7 S	1-25-65	0.10	--			-30H1 S	3- 8-65	0.03	--
						2S/8W-23C4 S	3- 8-65	0.05	--
<u>Y-OL.B1 Chino Hydrologic Subarea</u>									
1S/ 6W-16A1 S	3- 8-65	0.04	--	-25L1 S	3- 8-65	0.04	--		
-17H1 S	3- 8-65	0.03	--	-25M1 S	3- 8-65	0.01	--		
-28W3 S	3- 8-65	0.03	--	-26C2 S	3- 8-65	0.03	--		
-29R1 S	3- 8-65	0.05	--	<u>Y-OL.B5 Temescal Hydrologic Subarea</u>					
-31D1 S	3-11-65	0.02	--	3S/6W-28L1 S	3- 5-65	0.20	--		
-31D1 S	9-30-65	0.01	--	-28L1 S	9-21-65	0.20	--		
-31M1 S	3-11-65	0.06	--	3S/7W-21N1 S	3- 5-65	0.02	--		
-31M1 S	9-29-65	0.04	--	-21N1 S	9-21-65	0.05	--		
1S/ 7W-26A1 S	9-30-65	0.02	--	-22G2 S	3- 5-65	0.16	--		
				-22J4 S	3- 5-65	0.17	--		

TABLE E-4  
ANALYSES OF SYNTHETIC DETERGENTS IN GROUND WATER

State Well Number	Date Sampled	Parts per Million		State Well Number	Date Sampled	Parts per Million	
		MBAS as ABS	PO4			MBAS as ABS	PO4
SANTA ANA DRAINAGE PROVINCE (Y) cont'd.				SANTA ANA DRAINAGE PROVINCE (Y) cont'd.			
<u>Y-01.B5 Temescal Hydrologic Subarea</u>				<u>Y-01.E7 Riverside Hydrologic Subarea</u>			
3S/7W-22L1 S	3- 5-65	0.06	--	1S/4W-30D 6 S	10- 2-64	0.08	--
-28B1 S	9-21-65	0.06	--	-30L 4 S	3- 9-65	0.07	--
	3- 5-65	0.11	--		10- 2-64	0.54	--
<u>Y-01.E7 Riverside Hydrologic Subarea</u>	9-21-65	0.05	--	-31A 2 S	3- 9-65	0.83	--
					10- 2-64	0.52	--
1S/4W-28L2 S	3-25-65	0.04	0.06		3- 9-65	1.00	--
	5-19-65	0.13	0.10		3-19-65	1.00	2.30
-28N5 S	8- 9-65	0.08	0.04		5-18-65	1.30	3.50
	10- 7-64	0.11	0.06		8- 5-65	0.69	3.40
	3-25-65	0.22	0.04		9-20-65	0.68	--
-28R1 S	5-19-65	0.24	0.08	-31D 1 S	3-25-65	1.80	24.00
	3-19-65	0.06	0.08		5-19-65	1.68	24.00
	5-17-65	0.07	0.06	-32E11 S	8- 5-65	1.52	19.00
-29H1 S	8- 9-65	0.04	0.16	-32W 1 S	5-19-65	0.51	12.12
	10- 1-64	0.20	--		5-18-65	0.05	0.06
	3- 5-65	0.08	--	1S/5W-24E 1 S	8- 5-65	0.02	0.22
-29H3 S	9-21-65	0.11	--		3- 9-65	0.03	--
	3-19-65	0.06	0.06	-24Q 1 S	9-20-65	0.06	--
	5-19-65	0.06	0.06		10- 2-64	0.06	--
-29Q1 S	8- 9-65	0.06	0.06		3- 9-65	0.02	--
	10- 1-64	1.04	--	-25A 2 S	9-20-65	0.04	--
-29Q3 S	9-21-65	0.25	--	-25E 1 S	9-20-65	0.06	--
	3- 5-65	0.03	--		10- 2-64	0.06	--
	4- 1-65	0.06	0.02		3- 9-65	0.01	--
					9-20-65	0.06	--

TABLE E-4  
ANALYSES OF SYNTHETIC DETERGENTS IN GROUND WATER

State Well Number	Date Sampled	Parts per Million		State Well Number	Date Sampled	Parts per Million	
		MBAS as ABS	PO4			MBAS as ABS	PO4
SANTA ANA DRAINAGE PROVINCE (Y) cont'd.							
Y-01.B7 Riverside Hydrologic Subarea							
1S/5W-25L2 S	3-10-65	0.36	3.50	2S/4W- 6K2 S	10- 1-64	0.09	0.00
	5-19-65	0.36	0.23		3-19-65	0.13	0.04
	8- 4-65	0.32	20.00	- 6Q2 S	10- 1-64	0.09	0.00
-25R1 S	10- 2-64	0.42	--		3-19-65	0.08	0.04
	3- 9-65	0.36	--		5-19-65	0.10	0.08
	3-19-65	0.46	0.02		8- 9-65	0.12	0.06
	5-17-65	0.36	0.12	- 6R5 S	10- 1-64	0.03	0.00
	8- 5-65	0.20	0.00		3-19-65	0.12	0.14
	9-20-65	0.30	--	2S/5W- 1J2 S	10- 2-64	0.18	--
-25R4 S	5-17-65	0.40	0.18		3- 9-65	0.31	--
-35G1 S	3-18-65	0.02	0.10		9-20-65	0.08	--
	5-19-65	0.06	0.04	-11A1 S	10- 6-64	0.70	0.00
	8- 6-65	0.06	0.08		3-26-65	0.55	0.10
-36A1 S	12- 3-64	0.16	0.70		4- 1-65	0.53	0.02
	3- 5-65	0.09	0.00		5-19-65	0.60	0.04
-36B6 S	10- 2-64	0.44	--		8-10-65	0.60	0.06
	3- 9-65	0.48	--	-11M1 S	10- 5-64	0.04	0.02
	3-18-65	0.35	0.04		3-17-65	0.03	0.06
	5-17-65	0.36	0.06		5-20-65	0.08	0.04
	8- 5-65	0.60	--		8- 9-65	0.06	0.00
	9-20-65	0.52	--	-12B2 S	10- 1-64	0.05	0.00
2S/4W- 5C1 S	10- 1-64	0.14	0.04		3-17-65	0.13	0.10
	5-17-65	0.14	0.08		5-19-65	0.09	0.04
	8- 9-65	0.16	0.04		8- 5-65	0.10	0.04

TABLE E-4

## ANALYSES OF SYNTHETIC DETERGENTS IN GROUND WATER

State Well Number	Date Sampled	Parts per Million		State Well Number	Date Sampled	Parts per Million	
		MBAS as ABS	PO4			MBAS as ABS	PO4
SANTA ANA DRAINAGE PROVINCE (Y) cont'd.				SANTA ANA DRAINAGE PROVINCE (Y) cont'd.			
<u>Y-01.B7 Riverside Hydrologic Subarea</u>				<u>Y-01.B7 Riverside Hydrologic Subarea</u>			
2S/5W-12C1 S	10- 1-64	0.36	--	2S/5W-22D1 S	10- 5-64	0.02	0.06
	10- 2-64	0.23	--		3-18-65	0.03	0.06
	3-17-65	0.13	0.06		5-20-65	0.06	0.04
	5-19-65	0.20	0.04		3-25-65	0.22	0.00
	8-10-65	0.20	0.04		10- 5-64	0.05	0.12
-12E1 S	10- 1-64	0.00	0.00	3-18-65	3-18-65	0.16	0.40
	3-17-65	0.01	0.04		5-24-65	0.12	0.20
	5-19-65	0.03	0.06		6-10-65	0.10	0.00
	8- 5-65	0.04	0.04				
-12E2 S	10- 1-64	0.06	0.00	<u>Y-01.C2 Bedford Hydrologic Subarea</u>			
	3-17-65	0.39	0.10	4S/6W-21J1 S	3-20-65	0.08	--
	5-19-65	0.36	0.04		3-20-65	0.12	--
	8- 5-65	0.34	0.00				
	10- 5-64	0.02	0.02	<u>Y-01.D4 Colton-Rialto Hydrologic Subarea</u>			
-20E1 S	3-17-65	0.02	0.10	1S/4W-21I3 S	3-18-65	0.46	0.04
	5-20-65	0.06	0.00		5-18-65	0.56	0.20
	8- 9-65	0.10	0.08		8- 3-65	0.47	0.00
	10- 5-64	0.05	0.18		10- 6-64	2.00	0.00
	3-18-65	0.03	0.12		2- 4-65	0.77	--
-21J1 S	5-24-65	0.04	0.10	-21R1 S	3-18-65	2.00	0.04
	8- 9-65	0.08	0.10		5-18-65	2.13	0.02
	10- 5-65	0.05	0.00		8- 9-65	2.30	0.06
	3-18-65	0.01	0.06		11-30-64	0.12	1.24
	5-20-65	0.06	0.02		3- 1-65	0.05	1.00
6-10-65		0.06	0.06	-21R3 S	6- 1-65	0.09	0.12
					2- 2-65	0.00	0.58

TABLE E-4  
ANALYSES OF SYNTHETIC DETERGENTS IN GROUND WATER

State Well Number	Date Sampled	Parts per Million		State Well Number	Date Sampled	Parts per Million	
		MBAS as ABS	PO4			MBAS as ABS	PO4
SANTA ANA DRAINAGE PROVINCE (Y) cont'd.				SANTA ANA DRAINAGE PROVINCE (Y) cont'd.			
Y-01.D4 Colton-Rialto Hydrologic Subarea				Y-01.E2 Bunker Hill Hydrologic Subarea			
1S/4W-21R4 S	11-30-64	0.03	0.16	1S/3W-19Q2 S	3- 9-65	0.12	--
	3- 1-65	0.02	0.20	-19J1 S	9-29-65	0.04	--
	6- 1-65	0.02	0.14	1S/4W-13E7 S	3-25-65	0.00	0.00
	8- 2-65	0.03	0.12	-13Q2 S	9-29-65	0.02	--
-21R5 S	11-30-64	0.03	0.00	-13L1 S	9-29-65	0.14	--
	3- 1-65	0.03	0.02	-13M2 S	9-29-65	0.02	--
	6- 1-65	0.02	0.04	-13N1 S	5-17-65	0.03	0.06
	8- 2-65	0.08	0.00	-13N5 S	10- 6-64	0.06	0.00
-21R6 S	11-30-64	0.04	0.00		5-17-65	0.10	0.10
	2-26-65	0.02	0.28		8- 9-65	0.09	0.04
	6- 3-65	0.04	0.00	-14J3 S	3-25-65	0.02	0.04
	8- 2-65	0.04	0.02		5-17-65	0.02	0.04
-21R7 S	11-30-64	0.03	0.12		8- 4-65	0.04	0.00
	2-25-65	0.10	0.00	-22A5 S	3-19-65	0.00	0.04
	6- 3-65	0.04	0.14		5-18-65	0.02	0.24
	8- 2-65	0.04	0.18	-22E1 S	3-19-65	0.02	0.00
-28Q2 S	3-19-65	0.08	0.06		5-18-65	0.03	0.00
	5-17-65	0.10	0.00		8- 9-65	0.01	0.06
-29A1 S	8- 9-65	0.10	0.04	-22J5 S	10- 7-64	0.00	0.08
-29A2 S	5-17-65	0.04	0.00		3-25-65	0.02	0.12
	3-19-65	0.04	0.00		5-18-65	0.01	0.08
Y-01.E2 Bunker Hill Hydrologic Subarea				-23Q2 S	4- 1-65	0.02	0.04
1S/3W- 9E2 S	3- 9-65	0.04	--		5-18-65	0.01	0.06
-17C3 S	3- 9-65	0.08	--		8-10-65	0.02	0.02
	9-29-65	0.12	--				



TABLE E-4  
ANALYSES OF SYNTHETIC DETERGENTS IN GROUND WATER

State Well Number	Date Sampled	Parts per Million		State Well Number	Date Sampled	Parts per Million	
		MBAS as ABS	PO4			MBAS as ABS	PO4
SANTA ANA DRAINAGE PROVINCE (Y) cont'd.				SAN DIEGO DRAINAGE PROVINCE (Z) cont'd.			
<u>Y-01.E2 Bunker Hill Hydrologic Subarea</u>				<u>Z-07.A1 Mission San Diego Hydrologic Subarea</u>			
1S/4W-23D2 S	3-25-65	0.00	0.04	16S/2W-17H1 S	11-18-64	0.14	0.08
-23J1 S	8- 4-65	0.06	0.00	-18L1 S	6- 2-65	0.20	--
-23K2 S	10- 6-64	0.07	0.08	16S/3W-21J1 S	6- 2-65	0.43	--
	5-17-65	0.06	0.12	<u>Z-07.A2 Santee Hydrologic Subarea</u>			
	8- 9-65	0.09	1.20	15S/1W-27A5 S	6- 3-65	0.30	--
-23P3 S	3-18-65	0.02	0.02	-28Q3 S	11-18-64	1.02	0.16
-24E1 S	8- 9-65	0.03	0.04	-30K2 S	11-18-64	0.30	0.00
-26F1 S	10- 2-64	0.05	--	<u>Z-07.A3 El Cajon Hydrologic Subarea</u>			
	10- 6-64	0.01	0.08	15S/1W-28Q4 S	6- 3-65	0.32	--
	3-25-65	0.02	0.03	16S/1W-3C2 S	11-18-64	0.60	0.00
	5-17-65	0.06	0.00				
-27B2 S	8- 9-65	0.03	0.06				
	3-25-65	0.07	0.08				
	5-18-65	0.03	0.08				
1N/4W-29F1 S	8- 9-65	0.02	0.02				
	12- 2-64	0.05	--				
<u>SAN DIEGO DRAINAGE PROVINCE (Z)</u>							
<u>Z-07.A1 Mission San Diego Hydrologic Subarea</u>							
16S/2W- 9B1 S	11-18-64	0.60	0.00				
- 9B2 S	11-18-64	0.00	0.00				
- 9C9 S	6- 3-65	0.87	--				
-17D1 S	6- 2-65	0.33	--				







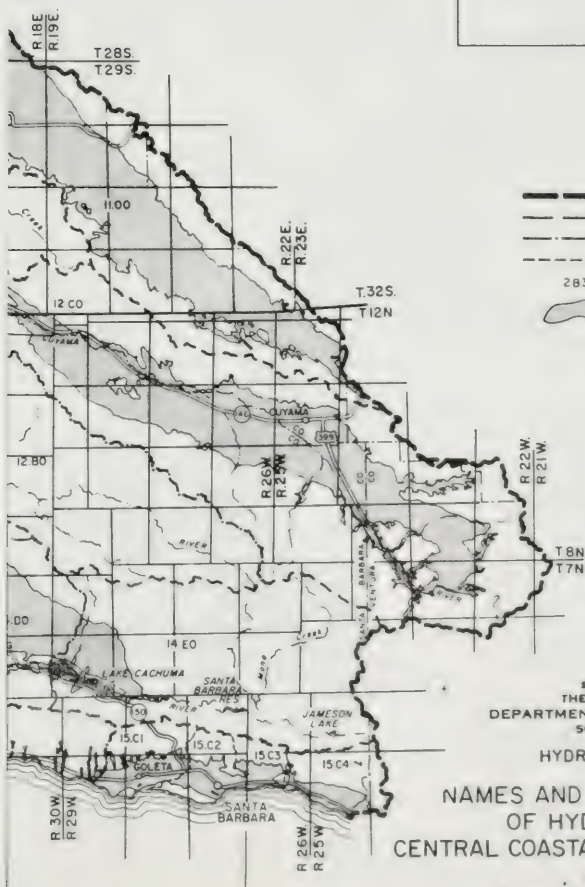








KEY MAP



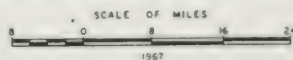
LEGEND

- DRAINAGE PROVINCE BOUNDARY
- HYDROLOGIC UNIT BOUNDARY
- HYDROLOGIC SUBUNIT BOUNDARY
- HYDROLOGIC SUBAREA BOUNDARY
- 2B3 AREAL CODE NUMBER
- WATER BEARING SEDIMENTS

STATE OF CALIFORNIA  
THE RESOURCES AGENCY  
DEPARTMENT OF WATER RESOURCES  
SOUTHERN DISTRICT

HYDROLOGIC DATA, 1965

NAMES AND AREAL CODE NUMBERS  
OF HYDROLOGIC AREAS  
CENTRAL COASTAL DRAINAGE PROVINCE (T)





AREAL DESIGNATIONS  
HYDROLOGIC UNITS, SUBUNITS AND SUBAREAS

CENTRAL COASTAL DRAINAGE PROVINCE

T-09-00	SALINAS HYDRO UNIT
T-09-00	PAJO RIOLES HYDRO SUBUNIT
T-09-10	POZO HYDRO SUBUNIT
T-10-00	SAN LUIS OBISPO HYDRO UNIT
T-10-02	CAMERIA HYDRO SUBUNIT
T-10-02	SAN CAMPOFORD HYDRO SUBAREA
T-10-02	ARROYO DE LA CRUZ HYDRO SUBAREA
T-10-02	SAN SIMON HYDRO SUBAREA
T-10-02	SANTA ROSA HYDRO SUBAREA
T-10-02	VILLA HYDRO SUBAREA
T-10-02	CAVACOS HYDRO SUBAREA
T-10-02	TEJO HYDRO SUBAREA
T-10-02	TORO HYDRO SUBAREA
T-10-02	SAN LUIS QUE PASE HYDRO SUBUNIT
T-10-02	MORJO HYDRO SUBAREA
T-10-02	MORJO HYDRO SUBAREA
T-10-02	LOS DIOS HYDRO SUBAREA
T-10-02	SAN LUIS OBISPO CO HYDRO SUBAREA
T-10-02	POINT SAN LUIS HYDRO SUBAREA
T-10-02	PIEDRA HYDRO SUBAREA
T-10-02	ARROYO GRANDE HYDRO SUBUNIT
T-10-02	ARROYO GRANDE HYDRO SUBAREA
T-10-02	NIPOMO HILLS HYDRO SUBAREA
T-11-00	CARRIZO PLAIN HYDRO UNIT
T-12-00	SANTA MARIA-CUYANA HYDRO UNIT
T-12-00	SANTA MARIA HYDRO SUBUNIT
T-12-00	STIVOK HYDRO SUBUNIT
T-12-00	CUYANA VALLEY HYDRO SUBUNIT
T-13-00	SAN ANTONIO HYDRO UNIT
T-14-00	SANTA YNEZ HYDRO UNIT
T-14-00	LOPPEC HYDRO SUBUNIT
T-14-00	SANTA YNEZ HYDRO SUBUNIT
T-14-00	BUELLER HYDRO SUBUNIT
T-14-00	SANTA YNEZ HYDRO SUBUNIT
T-14-00	HEADWATER HYDRO SUBUNIT
T-15-00	SANTA BARBARA HYDRO UNIT
T-15-00	ARGUELLO HYDRO SUBUNIT
T-15-00	SOUTH COAST HYDRO SUBUNIT
T-15-00	COLETA HYDRO SUBAREA
T-15-00	SANTA BARBARA HYDRO SUBAREA
T-15-00	MONTICLO HYDRO SUBAREA
T-15-00	CARPINTERIA HYDRO SUBAREA
T-16-00	SANTA BARBARA CO IS HYDRO UNIT
T-16-00	SAN MIGUEL ISLAND HYDRO SUBUNIT
T-16-00	SANTA ROSA ISLAND HYDRO SUBUNIT
T-16-00	SANTA CRUZ ISLAND HYDRO SUBUNIT



KEY MAP

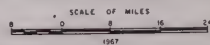
LEGEND

- DRAINAGE PROVINCE BOUNDARY
- HYDROLOGIC UNIT BOUNDARY
- HYDROLOGIC SUBUNIT BOUNDARY
- HYDROLOGIC SUBAREA BOUNDARY
- 2B3 AREAL CODE NUMBER
- WATER BEARING SEDIMENTS

STATE OF CALIFORNIA  
THE RESOURCES AGENCY  
DEPARTMENT OF WATER RESOURCES  
SOUTHERN DISTRICT

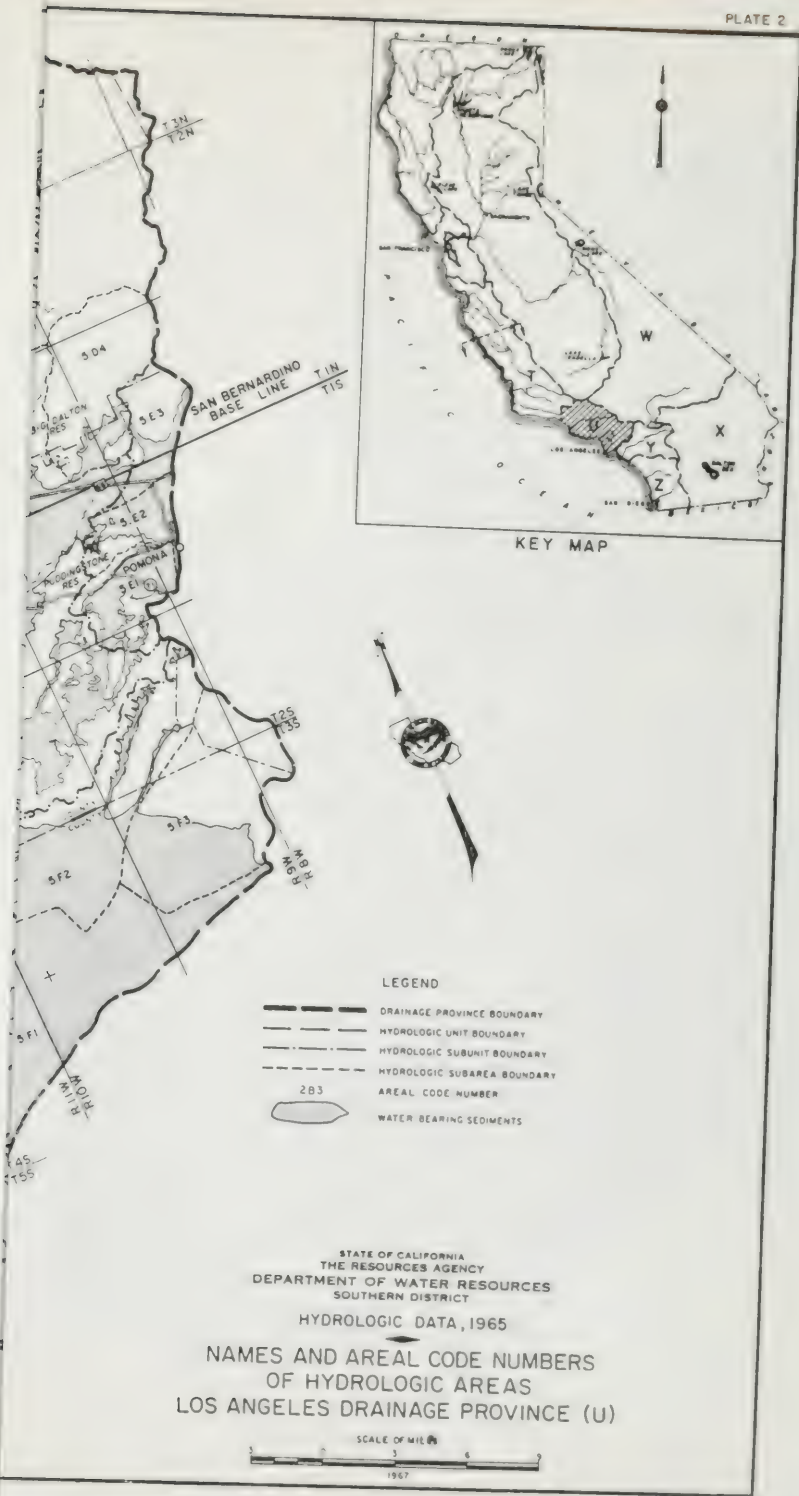
HYDROLOGIC DATA, 1965

NAMES AND AREAL CODE NUMBERS  
OF HYDROLOGIC AREAS  
CENTRAL COASTAL DRAINAGE PROVINCE (T)











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



- LEGEND
- ONE HALF INCH BOUNDARY
  - HYDROLOGIC SUB-AREA BOUNDARY
  - HYDROLOGIC SUB-AREA BOUNDARY
  - AREA CODE NUMBER
  - WATER BEARING SECTIONS

STATE OF CALIFORNIA  
THE RESOURCES AGENCY  
DEPARTMENT OF WATER RESOURCES  
SOUTHERN DISTRICT  
HYDROLOGIC DATA, 1965  
NAMES AND AREAL CODE NUMBERS  
OF HYDROLOGIC AREAS  
LOS ANGELES DRAINAGE PROVINCE (U)  
SCALE OF MILES  
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BETWEEN  
M O B A M

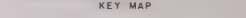
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	HYDROLOGIC UNIT BOUNDARY
	HYDROLOGIC SUBUNIT BOUNDARY
	HYDROLOGIC SUBAREA BOUNDARY
283	AREAL CODE NUMBER
	WATER BEARING SEDIMENTS

HYDROLOGIC DATA, 1965

NAMES AND AREAL CODE NUMBERS  
OF HYDROLOGIC AREAS  
LAHONTAN DRAINAGE PROVINCE (W)

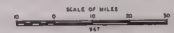






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HYDROLOGIC DATA, 1965  
 NAMES AND AREAL CODE NUMBERS  
 OF HYDROLOGIC AREAS  
 LAHONTAN DRAINAGE PROVINCE (W)

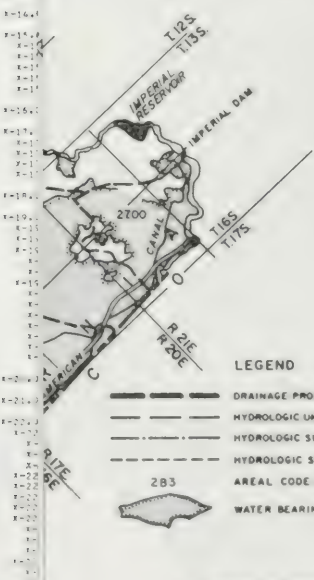




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KEY MAP



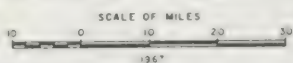
LEGEND

- DRAINAGE PROVINCE BOUNDARY
- HYDROLOGIC UNIT BOUNDARY
- HYDROLOGIC SUBUNIT BOUNDARY
- HYDROLOGIC SUBAREA BOUNDARY
- 283 AREAL CODE NUMBER
- WATER BEARING SEDIMENTS

STATE OF CALIFORNIA  
 THE RESOURCES AGENCY  
 DEPARTMENT OF WATER RESOURCES  
 SOUTHERN DISTRICT

HYDROLOGIC DATA, 1965

NAMES AND AREAL CODE NUMBERS  
 OF HYDROLOGIC AREAS  
 COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

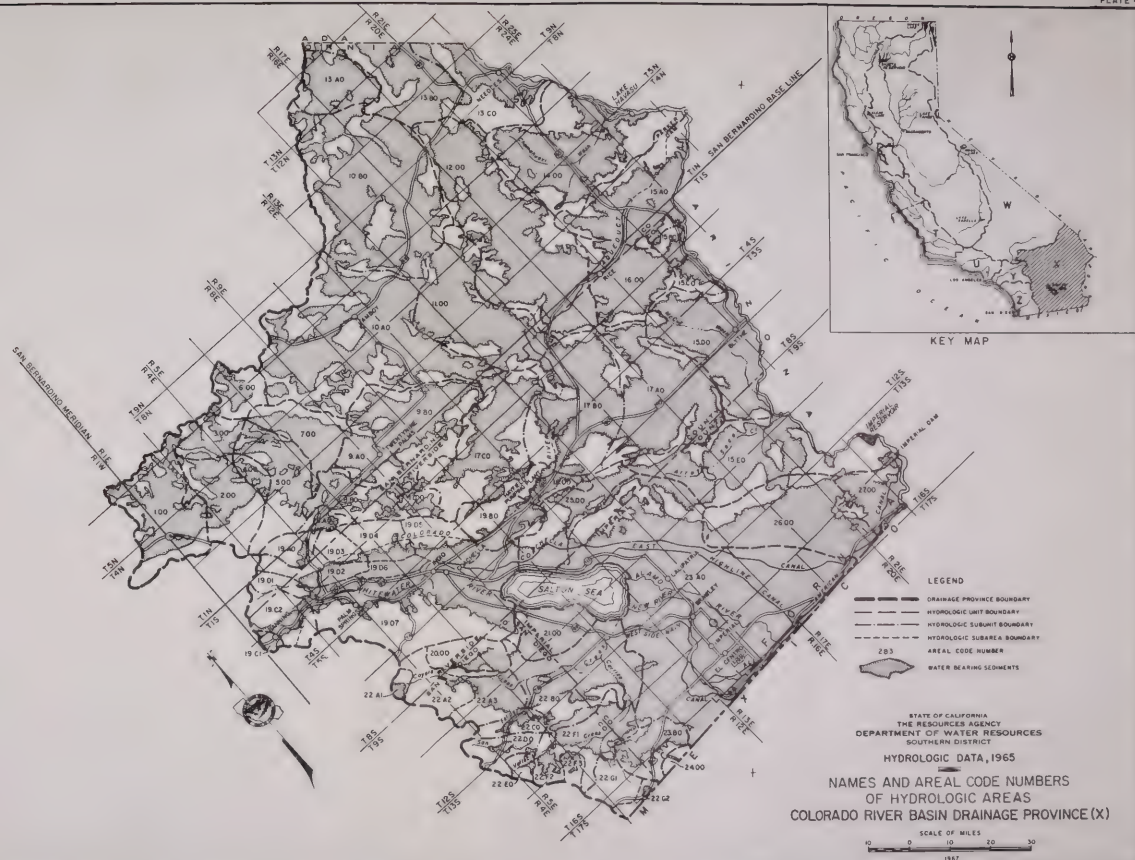






## COLORADO RIVER BASIN DRAINAGE PROVINCE

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| *007-21 | LUCENE HYDRO UNIT          |
| *007-22 | JOHNSON HYDRO UNIT         |
| *007-23 | RESSEMER HYDRO UNIT        |
| *007-24 | NEARS HYDRO UNIT           |
| *007-25 | ENDERSON HYDRO UNIT        |
| *007-26 | LEVIE HYDRO UNIT           |
| *007-27 | FLADMAN HYDRO UNIT         |
| *007-28 | JOSEFA TERRY HYDRO UNIT    |
| *007-29 | WEBSTER HYDRO UNIT         |
| *007-30 | COOPER MOUNTAIN HYDRO UNIT |
| *007-31 | COOPER MOUNTAIN HYDRO UNIT |
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| *008-00 | COOPER MOUNTAIN HYDRO UNIT |













KEY MAP

LEGEND

-  DRAINAGE PROVINCE BOUNDARY
-  HYDROLOGIC UNIT BOUNDARY
-  HYDROLOGIC SUBUNIT BOUNDARY
-  HYDROLOGIC SUBAREA BOUNDARY
-  AREAL CODE NUMBER
-  WATER BEARING SEDIMENTS

749  
755

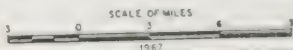
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STATE OF CALIFORNIA  
THE RESOURCES AGENCY  
DEPARTMENT OF WATER RESOURCES  
SOUTHERN DISTRICT

HYDROLOGIC DATA, 1965

NAMES AND AREAL CODE NUMBERS  
OF HYDROLOGIC AREAS  
SANTA ANA DRAINAGE PROVINCE (Y)











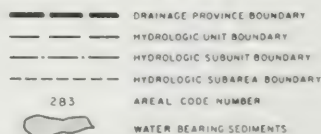
SAN DIEGO DRAINAGE PROVINCE

Z-0100	SAN JUAN HYDRO UNIT
Z-0101	LAGUNA HYDRO SUBUNIT
Z-0102	CAN JUANIN HYDRO SUBAREA
Z-0103	LAGUNA HYDRO SUBAREA
Z-0104	ALITO HYDRO SUBAREA
Z-0105	CANA POINT HYDRO SUBAREA
Z-0106	SAN JUAN HYDRO SUBUNIT
Z-0107	SAN CLEMENTE HYDRO SUBUNIT
Z-0108	SAN MATEO HYDRO SUBUNIT
Z-0109	SAN GONDORE HYDRO SUBUNIT
Z-0110	SAN GONDORE HYDRO SUBAREA
Z-0111	LAS PULGAS HYDRO SUBAREA
Z-0112	STUART HYDRO SUBAREA
Z-0113	SANTA MARGARITA HYDRO UNIT
Z-0114	YSIDORA HYDRO SUBUNIT
Z-0115	YSIDORA HYDRO SUBAREA
Z-0116	CHADDO HYDRO SUBAREA
Z-0117	UPPER YSIDORA HYDRO SUBAREA
Z-0118	DE LUZ HYDRO SUBAREA
Z-0119	CAVILAN HYDRO SUBAREA
Z-0120	VALLECITOS HYDRO SUBAREA
Z-0121	MURRIETA HYDRO SUBUNIT
Z-0122	WILDOMAR HYDRO SUBAREA
Z-0123	MURRIETA HYDRO SUBAREA
Z-0124	FRENCH HYDRO SUBAREA
Z-0125	LOWER DOMENIGONI HYDRO SUBAREA
Z-0126	CHIMELTONI HYDRO SUBAREA
Z-0127	DIAMOND HYDRO SUBAREA
Z-0128	AJLO HYDRO SUBUNIT
Z-0129	ALJO HYDRO SUBAREA
Z-0130	GUERRERO HYDRO SUBAREA
Z-0131	LOWER TUCALOTA HYDRO SUBAREA
Z-0132	TUCALOTA HYDRO SUBAREA
Z-0133	DECANALIA HYDRO SUBUNIT
Z-0134	PAUSA HYDRO SUBAREA
Z-0135	PECHANGA HYDRO SUBAREA
Z-0136	WELTON HYDRO SUBUNIT
Z-0137	LANCASTER VALLEY HYDRO SUBAREA
Z-0138	LEWIS HYDRO SUBAREA
Z-0139	ELSON HYDRO SUBAREA
Z-0140	ANZA HYDRO SUBUNIT
Z-0141	LOWER GRANJILLA HYDRO SUBAREA
Z-0142	UPPER GRANJILLA HYDRO SUBAREA
Z-0143	ANZA HYDRO SUBAREA
Z-0144	SHIRT HYDRO SUBAREA
Z-0145	AGUANGA HYDRO SUBUNIT
Z-0146	VAIL HYDRO SUBAREA
Z-0147	DEVILS HOLE HYDRO SUBAREA
Z-0148	HELEC HYDRO SUBAREA
Z-0149	AGUANGA HYDRO SUBAREA
Z-0150	ORANGE HYDRO SUBUNIT
Z-0151	LOWER COLD HYDRO SUBAREA
Z-0152	ORANGE HYDRO SUBAREA
Z-0153	DOGGE HYDRO SUBAREA
Z-0154	CHIMARRA HYDRO SUBAREA
Z-0155	SAN LUIS KEY HYDRO UNIT
Z-0156	BONKALL HYDRO SUBUNIT
Z-0157	MISSION HYDRO SUBAREA
Z-0158	BONKALL HYDRO SUBAREA
Z-0159	WONKALL HYDRO SUBAREA
Z-0160	VALLEY CENTER HYDRO SUBAREA
Z-0161	WONKALL HYDRO SUBAREA
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Z-0197	WONKALL HYDRO SUBAREA
Z-0198	WONKALL HYDRO SUBAREA
Z-0199	WONKALL HYDRO SUBAREA
Z-0200	WONKALL HYDRO SUBAREA



KEY MAP

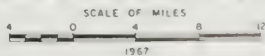
LEGEND



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THE RESOURCES AGENCY  
DEPARTMENT OF WATER RESOURCES  
SOUTHERN DISTRICT

HYDROLOGIC DATA, 1965

NAMES AND AREAL CODE NUMBERS  
OF HYDROLOGIC AREAS  
SAN DIEGO DRAINAGE PROVINCE (Z)





## SARAWAK DRAINAGE PROVINCE

A geological map of the LAGUNA area. The map shows a coastline with several labeled features: 'LAGUNA' at the top, 'LAGUNA' at the bottom, 'LAGUNA' on the left, and 'LAGUNA' on the right. The map includes a grid with coordinates T65, T75, T85, and T95. Other labels include '1A1', '1A2', '1A3', '1A4', '1A5', '1A6', '1A7', '1A8', '1A9', '1A10', '1A11', '1A12', '1A13', '1A14', '1A15', '1A16', '1A17', '1A18', '1A19', '1A20', '1A21', '1A22', '1A23', '1A24', '1A25', '1A26', '1A27', '1A28', '1A29', '1A30', '1A31', '1A32', '1A33', '1A34', '1A35', '1A36', '1A37', '1A38', '1A39', '1A40', '1A41', '1A42', '1A43', '1A44', '1A45', '1A46', '1A47', '1A48', '1A49', '1A50', '1A51', '1A52', '1A53', '1A54', '1A55', '1A56', '1A57', '1A58', '1A59', '1A60', '1A61', '1A62', '1A63', '1A64', '1A65', '1A66', '1A67', '1A68', '1A69', '1A70', '1A71', '1A72', '1A73', '1A74', '1A75', '1A76', '1A77', '1A78', '1A79', '1A80', '1A81', '1A82', '1A83', '1A84', '1A85', '1A86', '1A87', '1A88', '1A89', '1A90', '1A91', '1A92', '1A93', '1A94', '1A95', '1A96', '1A97', '1A98', '1A99', '1A100'. The map also shows a 'LAGUNA' area and a 'LAGUNA' area.

[illegible]

This is a detailed topographic map of the San Diego region. It features numerous contour lines indicating elevation, with labels such as 200, 300, 400, 500, 600, 700, 800, 900, 1000, 1100, 1200, 1300, 1400, 1500, 1600, 1700, 1800, 1900, 2000, 2100, 2200, 2300, 2400, 2500, 2600, 2700, 2800, 2900, 3000, 3100, 3200, 3300, 3400, 3500, 3600, 3700, 3800, 3900, 4000, 4100, 4200, 4300, 4400, 4500, 4600, 4700, 4800, 4900, 5000, 5100, 5200, 5300, 5400, 5500, 5600, 5700, 5800, 5900, 6000, 6100, 6200, 6300, 6400, 6500, 6600, 6700, 6800, 6900, 7000, 7100, 7200, 7300, 7400, 7500, 7600, 7700, 7800, 7900, 8000, 8100, 8200, 8300, 8400, 8500, 8600, 8700, 8800, 8900, 9000, 9100, 9200, 9300, 9400, 9500, 9600, 9700, 9800, 9900, 10000. Major roads are shown as solid lines, and smaller roads as dashed lines. Landmarks include San Diego, San Marcos, Escondido, and Vista. The map also shows the coastline and the Gulf of California.

This is a detailed topographic map of the San Bernardino Mountains region. The map shows the San Gabriel River flowing through the area, with the San Gabriel Dam located near the center. The terrain is characterized by numerous elevation contours, with peaks reaching over 10,000 feet. Key place names include San Gabriel, Ramona, San Bernardino, and San Juan. The map also shows the San Gabriel Dam and the San Gabriel River. The map is oriented with North at the top, and the San Gabriel River flows from the north towards the south. The map includes a grid system with latitude and longitude coordinates. The map is a black and white line drawing, typical of a topographic map.

**KEY MAP**

**LEGEND**

————— DRAINAGE PHASE

————— HYDROLOGIC CODE

————— HYDROLOGIC CODE

————— AREAL CODE

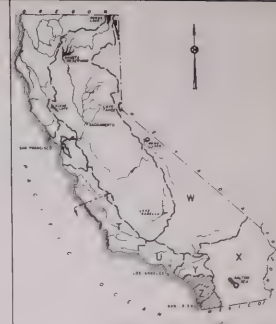
————— WATER BEARING

20 M

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DEPARTMENT OF WATER  
SOUTHERN DISTRICT  
HYDROLOGIC DATA






**JAMES AND AREAL CODES  
OF HYDROLOGIC DATA  
SAN DIEGO DRAINAGE**

SCALE OF MILES



### KEY MAP

LEGEND

- |   |                             |
|---|-----------------------------|
|  | CRAINAGE PROVINCE BOUNDARY  |
|  | HYDROLOGIC UNIT BOUNDARY    |
|  | HYDROLOGIC SUBUNIT BOUNDARY |
|  | HYDROLOGIC SUBAREA BOUNDARY |
|  | AREAL CODE NUMBER           |
- 283
- 
- WATER BEARING SEGMENTS

STATE OF CALIFORNIA  
THE RESOURCES AGENCY  
DEPARTMENT OF WATER RESOURCES  
SOUTHERN DISTRICT

HYDROLOGIC DATA, 1965

NAMES AND AREAL CODE NUMBERS  
OF HYDROLOGIC AREAS  
SAN DIEGO DRAINAGE PROVINCE (Z)

SCALE OF MILES











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